

# #

Protobuf Documentation

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## Table of Contents

- [cosmos/base/v1beta1/coin.proto](#)
- - [Coin](#)
- - [DecCoin](#)
- - [DecProto](#)
- - [IntProto](#)
- [coinswap/coinswap.proto](#)
- - [Input](#)
- - [Output](#)
- - [Params](#)
- - [Pool](#)
- [coinswap/genesis.proto](#)
- - [GenesisState](#)
- [cosmos/base/query/v1beta1/pagination.proto](#)
- - [PageRequest](#)
- - [PageResponse](#)
- [coinswap/query.proto](#)
- - [PoolInfo](#)
- - [QueryLiquidityPoolRequest](#)
- - [QueryLiquidityPoolResponse](#)
- - [QueryLiquidityPoolsRequest](#)
- - [QueryLiquidityPoolsResponse](#)
- - [Query](#)
- [coinswap/tx.proto](#)
- - [MsgAddLiquidity](#)
- - [MsgAddLiquidityResponse](#)
- - [MsgRemoveLiquidity](#)
- - [MsgRemoveLiquidityResponse](#)
- - [MsgSwapCoinResponse](#)
- - [MsgSwapOrder](#)
- - [Msg](#)
- [cosmos/auth/v1beta1/auth.proto](#)
- - [BaseAccount](#)
- - [ModuleAccount](#)
- - [Params](#)
- [cosmos/auth/v1beta1/genesis.proto](#)
- - [GenesisState](#)
- [cosmos/auth/v1beta1/query.proto](#)

- 
- [QueryAccountRequest](#)
- 
- [QueryAccountResponse](#)
- 
- [QueryParamsRequest](#)
- 
- [QueryParamsResponse](#)
- 
- [Query](#)
- [cosmos/bank/v1beta1/bank.proto](#)
- 
- [DenomUnit](#)
- 
- [Input](#)
- 
- [Metadata](#)
- 
- [Output](#)
- 
- [Params](#)
- 
- [SendEnabled](#)
- 
- [Supply](#)
- [cosmos/bank/v1beta1/genesis.proto](#)
- 
- [Balance](#)
- 
- [GenesisState](#)
- [cosmos/bank/v1beta1/query.proto](#)
- 
- [QueryAllBalancesRequest](#)
- 
- [QueryAllBalancesResponse](#)
- 
- [QueryBalanceRequest](#)
- 
- [QueryBalanceResponse](#)
- 
- [QueryDenomMetadataRequest](#)
- 
- [QueryDenomMetadataResponse](#)
- 
- [QueryDenomsMetadataRequest](#)
- 
- [QueryDenomsMetadataResponse](#)
- 
- [QueryParamsRequest](#)
- 
- [QueryParamsResponse](#)
- 
- [QuerySupplyOfRequest](#)
- 
- [QuerySupplyOfResponse](#)
- 
- [QueryTotalSupplyRequest](#)
- 
- [QueryTotalSupplyResponse](#)
- 
- [Query](#)
- [cosmos/bank/v1beta1/tx.proto](#)
- 
- [MsgMultiSend](#)
- 
- [MsgMultiSendResponse](#)
- 
- [MsgSend](#)
- 
- [MsgSendResponse](#)
- 
- [Msg](#)
- [cosmos/base/abci/v1beta1/abci.proto](#)
- 
- [ABCIMessageLog](#)
- 
- [Attribute](#)

- 
- [GasInfo](#)
- 
- [MsgData](#)
- 
- [Result](#)
- 
- [SearchTxsResult](#)
- 
- [SimulationResponse](#)
- 
- [StringEvent](#)
- 
- [TxMsgData](#)
- 
- [TxResponse](#)
- [cosmos/base/kv/v1beta1/kv.proto](#)
- 
- [Pair](#)
- 
- [Pairs](#)
- [cosmos/base/reflection/v1beta1/reflection.proto](#)
- 
- [ListAllInterfacesRequest](#)
- 
- [ListAllInterfacesResponse](#)
- 
- [ListImplementationsRequest](#)
- 
- [ListImplementationsResponse](#)
- 
- [ReflectionService](#)
- [cosmos/base/snapshots/v1beta1/snapshot.proto](#)
- 
- [Metadata](#)
- 
- [Snapshot](#)
- [cosmos/base/store/v1beta1/commit\\_info.proto](#)
- 
- [CommitID](#)
- 
- [CommitInfo](#)
- 
- [StoreInfo](#)
- [cosmos/base/store/v1beta1/snapshot.proto](#)
- 
- [SnapshotAVLItem](#)
- 
- [SnapshotItem](#)
- 
- [SnapshotStoreItem](#)
- [cosmos/base/tendermint/v1beta1/query.proto](#)
- 
- [GetBlockByHeightRequest](#)
- 
- [GetBlockByHeightResponse](#)
- 
- [GetLatestBlockRequest](#)
- 
- [GetLatestBlockResponse](#)
- 
- [GetLatestValidatorSetRequest](#)
- 
- [GetLatestValidatorSetResponse](#)
- 
- [GetNodeInfoRequest](#)
- 
- [GetNodeInfoResponse](#)
- 
- [GetSyncingRequest](#)
- 
- [GetSyncingResponse](#)
- 
- [GetValidatorSetByHeightRequest](#)
- 
- [GetValidatorSetByHeightResponse](#)
-

- [Module](#)
- 
- [Validator](#)
- 
- [VersionInfo](#)
- 
- [Service](#)
- [cosmos/capability/v1beta1/capability.proto](#)
- 
- [Capability](#)
- 
- [CapabilityOwners](#)
- 
- [Owner](#)
- [cosmos/capability/v1beta1/genesis.proto](#)
- 
- [GenesisOwners](#)
- 
- [GenesisState](#)
- [cosmos/crisis/v1beta1/genesis.proto](#)
- 
- [GenesisState](#)
- [cosmos/crisis/v1beta1/tx.proto](#)
- 
- [MsgVerifyInvariant](#)
- 
- [MsgVerifyInvariantResponse](#)
- 
- [Msg](#)
- [cosmos/crypto/ed25519/keys.proto](#)
- 
- [PrivKey](#)
- 
- [PubKey](#)
- [cosmos/crypto/multisig/keys.proto](#)
- 
- [LegacyAminoPubKey](#)
- [cosmos/crypto/multisig/v1beta1/multisig.proto](#)
- 
- [CompactBitArray](#)
- 
- [MultiSignature](#)
- [cosmos/crypto/secp256k1/keys.proto](#)
- 
- [PrivKey](#)
- 
- [PubKey](#)
- [cosmos/distribution/v1beta1/distribution.proto](#)
- 
- [CommunityPoolSpendProposal](#)
- 
- [CommunityPoolSpendProposalWithDeposit](#)
- 
- [DelegationDelegatorReward](#)
- 
- [DelegatorStartingInfo](#)
- 
- [FeePool](#)
- 
- [Params](#)
- 
- [ValidatorAccumulatedCommission](#)
- 
- [ValidatorCurrentRewards](#)
- 
- [ValidatorHistoricalRewards](#)
- 
- [ValidatorOutstandingRewards](#)
- 
- [ValidatorSlashEvent](#)
- 
- [ValidatorSlashEvents](#)
- [cosmos/distribution/v1beta1/genesis.proto](#)
- 
- [DelegatorStartingInfoRecord](#)
- 
- [DelegatorWithdrawInfo](#)

- 
- [GenesisState](#)
- 
- [ValidatorAccumulatedCommissionRecord](#)
- 
- [ValidatorCurrentRewardsRecord](#)
- 
- [ValidatorHistoricalRewardsRecord](#)
- 
- [ValidatorOutstandingRewardsRecord](#)
- 
- [ValidatorSlashEventRecord](#)
- [cosmos/distribution/v1beta1/query.proto](#)
- 
- [QueryCommunityPoolRequest](#)
- 
- [QueryCommunityPoolResponse](#)
- 
- [QueryDelegationRewardsRequest](#)
- 
- [QueryDelegationRewardsResponse](#)
- 
- [QueryDelegationTotalRewardsRequest](#)
- 
- [QueryDelegationTotalRewardsResponse](#)
- 
- [QueryDelegatorValidatorsRequest](#)
- 
- [QueryDelegatorValidatorsResponse](#)
- 
- [QueryDelegatorWithdrawAddressRequest](#)
- 
- [QueryDelegatorWithdrawAddressResponse](#)
- 
- [QueryParamsRequest](#)
- 
- [QueryParamsResponse](#)
- 
- [QueryValidatorCommissionRequest](#)
- 
- [QueryValidatorCommissionResponse](#)
- 
- [QueryValidatorOutstandingRewardsRequest](#)
- 
- [QueryValidatorOutstandingRewardsResponse](#)
- 
- [QueryValidatorSlashesRequest](#)
- 
- [QueryValidatorSlashesResponse](#)
- 
- [Query](#)
- [cosmos/distribution/v1beta1/tx.proto](#)
- 
- [MsgFundCommunityPool](#)
- 
- [MsgFundCommunityPoolResponse](#)
- 
- [MsgSetWithdrawAddress](#)
- 
- [MsgSetWithdrawAddressResponse](#)
- 
- [MsgWithdrawDelegatorReward](#)
- 
- [MsgWithdrawDelegatorRewardResponse](#)
- 
- [MsgWithdrawValidatorCommission](#)
- 
- [MsgWithdrawValidatorCommissionResponse](#)
- 
- [Msg](#)
- [cosmos/evidence/v1beta1/evidence.proto](#)
- 
- [Equivocation](#)
- [cosmos/evidence/v1beta1/genesis.proto](#)
- 
- [GenesisState](#)
- [cosmos/evidence/v1beta1/query.proto](#)

- 
- [QueryAllEvidenceRequest](#)
- 
- [QueryAllEvidenceResponse](#)
- 
- [QueryEvidenceRequest](#)
- 
- [QueryEvidenceResponse](#)
- 
- [Query](#)
- [cosmos/evidence/v1beta1/tx.proto](#)
- 
- [MsgSubmitEvidence](#)
- 
- [MsgSubmitEvidenceResponse](#)
- 
- [Msg](#)
- [cosmos/genutil/v1beta1/genesis.proto](#)
- 
- [GenesisState](#)
- [cosmos/gov/v1beta1/gov.proto](#)
- 
- [Deposit](#)
- 
- [DepositParams](#)
- 
- [Proposal](#)
- 
- [TallyParams](#)
- 
- [TallyResult](#)
- 
- [TextProposal](#)
- 
- [Vote](#)
- 
- [VotingParams](#)
- 
- [ProposalStatus](#)
- 
- [VoteOption](#)
- [cosmos/gov/v1beta1/genesis.proto](#)
- 
- [GenesisState](#)
- [cosmos/gov/v1beta1/query.proto](#)
- 
- [QueryDepositRequest](#)
- 
- [QueryDepositResponse](#)
- 
- [QueryDepositsRequest](#)
- 
- [QueryDepositsResponse](#)
- 
- [QueryParamsRequest](#)
- 
- [QueryParamsResponse](#)
- 
- [QueryProposalRequest](#)
- 
- [QueryProposalResponse](#)
- 
- [QueryProposalsRequest](#)
- 
- [QueryProposalsResponse](#)
- 
- [QueryTallyResultRequest](#)
- 
- [QueryTallyResultResponse](#)
- 
- [QueryVoteRequest](#)
- 
- [QueryVoteResponse](#)
- 
- [QueryVotesRequest](#)
- 
- [QueryVotesResponse](#)

- - [Query](#)
- [cosmos/gov/v1beta1/tx.proto](#)
- - [MsgDeposit](#)
- - [MsgDepositResponse](#)
- - [MsgSubmitProposal](#)
- - [MsgSubmitProposalResponse](#)
- - [MsgVote](#)
- - [MsgVoteResponse](#)
- - [Msg](#)
- [cosmos/params/v1beta1/params.proto](#)
- - [ParamChange](#)
- - [ParameterChangeProposal](#)
- [cosmos/params/v1beta1/query.proto](#)
- - [QueryParamsRequest](#)
- - [QueryParamsResponse](#)
- - [Query](#)
- [cosmos/slashing/v1beta1/slashing.proto](#)
- - [Params](#)
- - [ValidatorSigningInfo](#)
- [cosmos/slashing/v1beta1/genesis.proto](#)
- - [GenesisState](#)
- - [MissedBlock](#)
- - [SigningInfo](#)
- - [ValidatorMissedBlocks](#)
- [cosmos/slashing/v1beta1/query.proto](#)
- - [QueryParamsRequest](#)
- - [QueryParamsResponse](#)
- - [QuerySigningInfoRequest](#)
- - [QuerySigningInfoResponse](#)
- - [QuerySigningInfosRequest](#)
- - [QuerySigningInfosResponse](#)
- - [Query](#)
- [cosmos/slashing/v1beta1/tx.proto](#)
- - [MsgUnjail](#)
- - [MsgUnjailResponse](#)
- - [Msg](#)
- [cosmos/staking/v1beta1/staking.proto](#)
- - [Commission](#)
- - [CommissionRates](#)
- - [DVPair](#)
- - [DVPairs](#)
- - [DVVTriplet](#)
-

- [DVVTriplets](#)
- 
- [Delegation](#)
- 
- [DelegationResponse](#)
- 
- [Description](#)
- 
- [HistoricalInfo](#)
- 
- [Params](#)
- 
- [Pool](#)
- 
- [Redelegation](#)
- 
- [RedelegationEntry](#)
- 
- [RedelegationEntryResponse](#)
- 
- [RedelegationResponse](#)
- 
- [UnbondingDelegation](#)
- 
- [UnbondingDelegationEntry](#)
- 
- [ValAddresses](#)
- 
- [Validator](#)
- 
- [BondStatus](#)
- [cosmos/staking/v1beta1/genesis.proto](#)
- 
- [GenesisState](#)
- 
- [LastValidatorPower](#)
- [cosmos/staking/v1beta1/query.proto](#)
- 
- [QueryDelegationRequest](#)
- 
- [QueryDelegationResponse](#)
- 
- [QueryDelegatorDelegationsRequest](#)
- 
- [QueryDelegatorDelegationsResponse](#)
- 
- [QueryDelegatorUnbondingDelegationsRequest](#)
- 
- [QueryDelegatorUnbondingDelegationsResponse](#)
- 
- [QueryDelegatorValidatorRequest](#)
- 
- [QueryDelegatorValidatorResponse](#)
- 
- [QueryDelegatorValidatorsRequest](#)
- 
- [QueryDelegatorValidatorsResponse](#)
- 
- [QueryHistoricalInfoRequest](#)
- 
- [QueryHistoricalInfoResponse](#)
- 
- [QueryParamsRequest](#)
- 
- [QueryParamsResponse](#)
- 
- [QueryPoolRequest](#)
- 
- [QueryPoolResponse](#)
- 
- [QueryRedelegationsRequest](#)
- 
- [QueryRedelegationsResponse](#)
- 
- [QueryUnbondingDelegationRequest](#)
- 
- [QueryUnbondingDelegationResponse](#)



- 
- [QueryValidatorDelegationsRequest](#)
- 
- [QueryValidatorDelegationsResponse](#)
- 
- [QueryValidatorRequest](#)
- 
- [QueryValidatorResponse](#)
- 
- [QueryValidatorUnbondingDelegationsRequest](#)
- 
- [QueryValidatorUnbondingDelegationsResponse](#)
- 
- [QueryValidatorsRequest](#)
- 
- [QueryValidatorsResponse](#)
- 
- [Query](#)
- [cosmos/staking/v1beta1/tx.proto](#)
- 
- [MsgBeginRedelegate](#)
- 
- [MsgBeginRedelegateResponse](#)
- 
- [MsgCreateValidator](#)
- 
- [MsgCreateValidatorResponse](#)
- 
- [MsgDelegate](#)
- 
- [MsgDelegateResponse](#)
- 
- [MsgEditValidator](#)
- 
- [MsgEditValidatorResponse](#)
- 
- [MsgUndelegate](#)
- 
- [MsgUndelegateResponse](#)
- 
- [Msg](#)
- [cosmos/tx/signing/v1beta1/signing.proto](#)
- 
- [SignatureDescriptor](#)
- 
- [SignatureDescriptor.Data](#)
- 
- [SignatureDescriptor.Data.Multi](#)
- 
- [SignatureDescriptor.Data.Single](#)
- 
- [SignatureDescriptors](#)
- 
- [SignMode](#)
- [cosmos/tx/v1beta1/tx.proto](#)
- 
- [AuthInfo](#)
- 
- [Fee](#)
- 
- [ModeInfo](#)
- 
- [ModeInfo.Multi](#)
- 
- [ModeInfo.Single](#)
- 
- [SignDoc](#)
- 
- [SignerInfo](#)
- 
- [Tx](#)
- 
- [TxBody](#)
- 
- [TxRaw](#)
- [cosmos/tx/v1beta1/service.proto](#)
-

- [BroadcastTxRequest](#)
- 
- [BroadcastTxResponse](#)
- 
- [GetTxRequest](#)
- 
- [GetTxResponse](#)
- 
- [GetTxsEventRequest](#)
- 
- [GetTxsEventResponse](#)
- 
- [SimulateRequest](#)
- 
- [SimulateResponse](#)
- 
- [BroadcastMode](#)
- 
- [OrderBy](#)
- 
- [Service](#)
- [cosmos/upgrade/v1beta1/upgrade.proto](#)
- 
- [CancelSoftwareUpgradeProposal](#)
- 
- [Plan](#)
- 
- [SoftwareUpgradeProposal](#)
- [cosmos/upgrade/v1beta1/query.proto](#)
- 
- [QueryAppliedPlanRequest](#)
- 
- [QueryAppliedPlanResponse](#)
- 
- [QueryCurrentPlanRequest](#)
- 
- [QueryCurrentPlanResponse](#)
- 
- [QueryUpgradedConsensusStateRequest](#)
- 
- [QueryUpgradedConsensusStateResponse](#)
- 
- [Query](#)
- [cosmos/vesting/v1beta1/tx.proto](#)
- 
- [MsgCreateVestingAccount](#)
- 
- [MsgCreateVestingAccountResponse](#)
- 
- [Msg](#)
- [cosmos/vesting/v1beta1/vesting.proto](#)
- 
- [BaseVestingAccount](#)
- 
- [ContinuousVestingAccount](#)
- 
- [DelayedVestingAccount](#)
- 
- [Period](#)
- 
- [PeriodicVestingAccount](#)
- [farm/farm.proto](#)
- 
- [FarmInfo](#)
- 
- [FarmPool](#)
- 
- [Params](#)
- 
- [RewardRule](#)
- [farm/genesis.proto](#)
- 
- [GenesisState](#)
- [farm/query.proto](#)
- 
- [FarmPoolEntry](#)
-

- [LockedInfo](#)
- 
- [QueryFarmPoolRequest](#)
- 
- [QueryFarmPoolResponse](#)
- 
- [QueryFarmPoolsRequest](#)
- 
- [QueryFarmPoolsResponse](#)
- 
- [QueryFarmerRequest](#)
- 
- [QueryFarmerResponse](#)
- 
- [QueryParamsRequest](#)
- 
- [QueryParamsResponse](#)
- 
- [Query](#)
- [farm/tx.proto](#)
- 
- [MsgAdjustPool](#)
- 
- [MsgAdjustPoolResponse](#)
- 
- [MsgCreatePool](#)
- 
- [MsgCreatePoolResponse](#)
- 
- [MsgDestroyPool](#)
- 
- [MsgDestroyPoolResponse](#)
- 
- [MsgHarvest](#)
- 
- [MsgHarvestResponse](#)
- 
- [MsgStake](#)
- 
- [MsgStakeResponse](#)
- 
- [MsgUnstake](#)
- 
- [MsgUnstakeResponse](#)
- 
- [Msg](#)
- [guardian/guardian.proto](#)
- 
- [Super](#)
- 
- [AccountType](#)
- [guardian/genesis.proto](#)
- 
- [GenesisState](#)
- [guardian/query.proto](#)
- 
- [QuerySupersRequest](#)
- 
- [QuerySupersResponse](#)
- 
- [Query](#)
- [guardian/tx.proto](#)
- 
- [MsgAddSuper](#)
- 
- [MsgAddSuperResponse](#)
- 
- [MsgDeleteSuper](#)
- 
- [MsgDeleteSuperResponse](#)
- 
- [Msg](#)
- [htlc/htlc.proto](#)
- 
- [AssetParam](#)
- 
- [AssetSupply](#)

- 
- [HTLC](#)
- 
- [Params](#)
- 
- [SupplyLimit](#)
- 
- [HTLCState](#)
- 
- [SwapDirection](#)
- [htlc/genesis.proto](#)
- 
- [GenesisState](#)
- [htlc/query.proto](#)
- 
- [QueryAssetSuppliesRequest](#)
- 
- [QueryAssetSuppliesResponse](#)
- 
- [QueryAssetSupplyRequest](#)
- 
- [QueryAssetSupplyResponse](#)
- 
- [QueryHTLCRequest](#)
- 
- [QueryHTLCResponse](#)
- 
- [QueryParamsRequest](#)
- 
- [QueryParamsResponse](#)
- 
- [Query](#)
- [htlc/tx.proto](#)
- 
- [MsgClaimHTLC](#)
- 
- [MsgClaimHTLCResponse](#)
- 
- [MsgCreateHTLC](#)
- 
- [MsgCreateHTLCResponse](#)
- 
- [Msg](#)
- [ibc/applications/transfer/v1/transfer.proto](#)
- 
- [DenomTrace](#)
- 
- [FungibleTokenPacketData](#)
- 
- [Params](#)
- [ibc/applications/transfer/v1/genesis.proto](#)
- 
- [GenesisState](#)
- [ibc/applications/transfer/v1/query.proto](#)
- 
- [QueryDenomTraceRequest](#)
- 
- [QueryDenomTraceResponse](#)
- 
- [QueryDenomTracesRequest](#)
- 
- [QueryDenomTracesResponse](#)
- 
- [QueryParamsRequest](#)
- 
- [QueryParamsResponse](#)
- 
- [Query](#)
- [ibc/core/client/v1/client.proto](#)
- 
- [ClientConsensusStates](#)
- 
- [ClientUpdateProposal](#)
- 
- [ConsensusStateWithHeight](#)
- 
- [Height](#)

- [IdentifiedClientState](#)
- [Params](#)
- [ibc/applications/transfer/v1/tx.proto](#)
- [MsgTransfer](#)
- [MsgTransferResponse](#)
- [Msg](#)
- [ibc/core/channel/v1/channel.proto](#)
- [Acknowledgement](#)
- [Channel](#)
- [Counterparty](#)
- [IdentifiedChannel](#)
- [Packet](#)
- [PacketState](#)
- [Order](#)
- [State](#)
- [ibc/core/channel/v1/genesis.proto](#)
- [GenesisState](#)
- [PacketSequence](#)
- [ibc/core/channel/v1/query.proto](#)
- [QueryChannelClientStateRequest](#)
- [QueryChannelClientStateResponse](#)
- [QueryChannelConsensusStateRequest](#)
- [QueryChannelConsensusStateResponse](#)
- [QueryChannelRequest](#)
- [QueryChannelResponse](#)
- [QueryChannelsRequest](#)
- [QueryChannelsResponse](#)
- [QueryConnectionChannelsRequest](#)
- [QueryConnectionChannelsResponse](#)
- [QueryNextSequenceReceiveRequest](#)
- [QueryNextSequenceReceiveResponse](#)
- [QueryPacketAcknowledgementRequest](#)
- [QueryPacketAcknowledgementResponse](#)
- [QueryPacketAcknowledgementsRequest](#)
- [QueryPacketAcknowledgementsResponse](#)
- [QueryPacketCommitmentRequest](#)
- [QueryPacketCommitmentResponse](#)
- [QueryPacketCommitmentsRequest](#)
- [QueryPacketCommitmentsResponse](#)
- [QueryPacketReceiptRequest](#)

- [QueryPacketReceiptResponse](#)
- 
- [QueryUnreceivedAcksRequest](#)
- 
- [QueryUnreceivedAcksResponse](#)
- 
- [QueryUnreceivedPacketsRequest](#)
- 
- [QueryUnreceivedPacketsResponse](#)
- 
- [Query](#)
- [ibc/core/channel/v1/tx.proto](#)
- 
- [MsgAcknowledgement](#)
- 
- [MsgAcknowledgementResponse](#)
- 
- [MsgChannelCloseConfirm](#)
- 
- [MsgChannelCloseConfirmResponse](#)
- 
- [MsgChannelCloseInit](#)
- 
- [MsgChannelCloseInitResponse](#)
- 
- [MsgChannelOpenAck](#)
- 
- [MsgChannelOpenAckResponse](#)
- 
- [MsgChannelOpenConfirm](#)
- 
- [MsgChannelOpenConfirmResponse](#)
- 
- [MsgChannelOpenInit](#)
- 
- [MsgChannelOpenInitResponse](#)
- 
- [MsgChannelOpenTry](#)
- 
- [MsgChannelOpenTryResponse](#)
- 
- [MsgRecvPacket](#)
- 
- [MsgRecvPacketResponse](#)
- 
- [MsgTimeout](#)
- 
- [MsgTimeoutOnClose](#)
- 
- [MsgTimeoutOnCloseResponse](#)
- 
- [MsgTimeoutResponse](#)
- 
- [Msg](#)
- [ibc/core/client/v1/genesis.proto](#)
- 
- [GenesisMetadata](#)
- 
- [GenesisState](#)
- 
- [IdentifiedGenesisMetadata](#)
- [ibc/core/client/v1/query.proto](#)
- 
- [QueryClientParamsRequest](#)
- 
- [QueryClientParamsResponse](#)
- 
- [QueryClientStateRequest](#)
- 
- [QueryClientStateResponse](#)
- 
- [QueryClientStatesRequest](#)
- 
- [QueryClientStatesResponse](#)
- 
- [QueryConsensusStateRequest](#)
-

- [QueryConsensusStateResponse](#)
- 
- [QueryConsensusStatesRequest](#)
- 
- [QueryConsensusStatesResponse](#)
- 
- [Query](#)
- [ibc/core/client/v1/tx.proto](#)
- 
- [MsgCreateClient](#)
- 
- [MsgCreateClientResponse](#)
- 
- [MsgSubmitMisbehaviour](#)
- 
- [MsgSubmitMisbehaviourResponse](#)
- 
- [MsgUpdateClient](#)
- 
- [MsgUpdateClientResponse](#)
- 
- [MsgUpgradeClient](#)
- 
- [MsgUpgradeClientResponse](#)
- 
- [Msg](#)
- [ibc/core/commitment/v1/commitment.proto](#)
- 
- [MerklePath](#)
- 
- [MerklePrefix](#)
- 
- [MerkleProof](#)
- 
- [MerkleRoot](#)
- [ibc/core/connection/v1/connection.proto](#)
- 
- [ClientPaths](#)
- 
- [ConnectionEnd](#)
- 
- [ConnectionPaths](#)
- 
- [Counterparty](#)
- 
- [IdentifiedConnection](#)
- 
- [Version](#)
- 
- [State](#)
- [ibc/core/connection/v1/genesis.proto](#)
- 
- [GenesisState](#)
- [ibc/core/connection/v1/query.proto](#)
- 
- [QueryClientConnectionsRequest](#)
- 
- [QueryClientConnectionsResponse](#)
- 
- [QueryConnectionClientStateRequest](#)
- 
- [QueryConnectionClientStateResponse](#)
- 
- [QueryConnectionConsensusStateRequest](#)
- 
- [QueryConnectionConsensusStateResponse](#)
- 
- [QueryConnectionRequest](#)
- 
- [QueryConnectionResponse](#)
- 
- [QueryConnectionsRequest](#)
- 
- [QueryConnectionsResponse](#)
- 
- [Query](#)
- [ibc/core/connection/v1/tx.proto](#)

- 
- [MsgConnectionOpenAck](#)
- 
- [MsgConnectionOpenAckResponse](#)
- 
- [MsgConnectionOpenConfirm](#)
- 
- [MsgConnectionOpenConfirmResponse](#)
- 
- [MsgConnectionOpenInit](#)
- 
- [MsgConnectionOpenInitResponse](#)
- 
- [MsgConnectionOpenTry](#)
- 
- [MsgConnectionOpenTryResponse](#)
- 
- [Msg](#)
- [ibc/core/types/v1/genesis.proto](#)
- 
- [GenesisState](#)
- [ibc/lightclients/localhost/v1/localhost.proto](#)
- 
- [ClientState](#)
- [ibc/lightclients/solomachine/v1/solomachine.proto](#)
- 
- [ChannelStateData](#)
- 
- [ClientState](#)
- 
- [ClientStateData](#)
- 
- [ConnectionStateData](#)
- 
- [ConsensusState](#)
- 
- [ConsensusStateData](#)
- 
- [Header](#)
- 
- [HeaderData](#)
- 
- [Misbehaviour](#)
- 
- [NextSequenceRecvData](#)
- 
- [PacketAcknowledgementData](#)
- 
- [PacketCommitmentData](#)
- 
- [PacketReceiptAbsenceData](#)
- 
- [SignBytes](#)
- 
- [SignatureAndData](#)
- 
- [TimestampedSignatureData](#)
- 
- [DataType](#)
- [ibc/lightclients/tendermint/v1/tendermint.proto](#)
- 
- [ClientState](#)
- 
- [ConsensusState](#)
- 
- [Fraction](#)
- 
- [Header](#)
- 
- [Misbehaviour](#)
- [mint/mint.proto](#)
- 
- [Minter](#)
- 
- [Params](#)
- [mint/genesis.proto](#)
-



- [GenesisState](#)
- [mint/query.proto](#)
- 
- [QueryParamsRequest](#)
- 
- [QueryParamsResponse](#)
- 
- [Query](#)
- [nft/nft.proto](#)
- 
- [BaseNFT](#)
- 
- [Collection](#)
- 
- [Denom](#)
- 
- [IDCollection](#)
- 
- [Owner](#)
- [nft/genesis.proto](#)
- 
- [GenesisState](#)
- [nft/query.proto](#)
- 
- [QueryCollectionRequest](#)
- 
- [QueryCollectionResponse](#)
- 
- [QueryDenomRequest](#)
- 
- [QueryDenomResponse](#)
- 
- [QueryDenomsRequest](#)
- 
- [QueryDenomsResponse](#)
- 
- [QueryNFTRequest](#)
- 
- [QueryNFTResponse](#)
- 
- [QueryOwnerRequest](#)
- 
- [QueryOwnerResponse](#)
- 
- [QuerySupplyRequest](#)
- 
- [QuerySupplyResponse](#)
- 
- [Query](#)
- [nft/tx.proto](#)
- 
- [MsgBurnNFT](#)
- 
- [MsgBurnNFTResponse](#)
- 
- [MsgEditNFT](#)
- 
- [MsgEditNFTResponse](#)
- 
- [MsgIssueDenom](#)
- 
- [MsgIssueDenomResponse](#)
- 
- [MsgMintNFT](#)
- 
- [MsgMintNFTResponse](#)
- 
- [MsgTransferDenom](#)
- 
- [MsgTransferDenomResponse](#)
- 
- [MsgTransferNFT](#)
- 
- [MsgTransferNFTResponse](#)
- 
- [Msg](#)
- [oracle/oracle.proto](#)

- [Feed](#)
- [FeedValue](#)
- [service/service.proto](#)
- [CompactRequest](#)
- [Params](#)
- [Pricing](#)
- [PromotionByTime](#)
- [PromotionByVolume](#)
- [Request](#)
- [RequestContext](#)
- [Response](#)
- [ServiceBinding](#)
- [ServiceDefinition](#)
- [RequestContextBatchState](#)
- [RequestContextState](#)
- [oracle/genesis.proto](#)
- [FeedEntry](#)
- [GenesisState](#)
- [oracle/query.proto](#)
- [FeedContext](#)
- [QueryFeedRequest](#)
- [QueryFeedResponse](#)
- [QueryFeedValueRequest](#)
- [QueryFeedValueResponse](#)
- [QueryFeedsRequest](#)
- [QueryFeedsResponse](#)
- [Query](#)
- [oracle/tx.proto](#)
- [MsgCreateFeed](#)
- [MsgCreateFeedResponse](#)
- [MsgEditFeed](#)
- [MsgEditFeedResponse](#)
- [MsgPauseFeed](#)
- [MsgPauseFeedResponse](#)
- [MsgStartFeed](#)
- [MsgStartFeedResponse](#)
- [Msg](#)
- [random/random.proto](#)
- [Random](#)
- [Request](#)
- [random/genesis.proto](#)

- [GenesisState](#)
- 
- [GenesisState.PendingRandomRequestsEntry](#)
- 
- [Requests](#)
- [random/query.proto](#)
- 
- [QueryRandomRequest](#)
- 
- [QueryRandomRequestQueueRequest](#)
- 
- [QueryRandomRequestQueueResponse](#)
- 
- [QueryRandomResponse](#)
- 
- [Query](#)
- [random/tx.proto](#)
- 
- [MsgRequestRandom](#)
- 
- [MsgRequestRandomResponse](#)
- 
- [Msg](#)
- [record/record.proto](#)
- 
- [Content](#)
- 
- [Record](#)
- [record/genesis.proto](#)
- 
- [GenesisState](#)
- [record/query.proto](#)
- 
- [QueryRecordRequest](#)
- 
- [QueryRecordResponse](#)
- 
- [Query](#)
- [record/tx.proto](#)
- 
- [MsgCreateRecord](#)
- 
- [MsgCreateRecordResponse](#)
- 
- [Msg](#)
- [service/genesis.proto](#)
- 
- [GenesisState](#)
- 
- [GenesisState.RequestContextsEntry](#)
- 
- [GenesisState.WithdrawAddressesEntry](#)
- [service/query.proto](#)
- 
- [QueryBindingRequest](#)
- 
- [QueryBindingResponse](#)
- 
- [QueryBindingsRequest](#)
- 
- [QueryBindingsResponse](#)
- 
- [QueryDefinitionRequest](#)
- 
- [QueryDefinitionResponse](#)
- 
- [QueryEarnedFeesRequest](#)
- 
- [QueryEarnedFeesResponse](#)
- 
- [QueryParamsRequest](#)
- 
- [QueryParamsResponse](#)
- 
- [QueryRequestContextRequest](#)
- 
- [QueryRequestContextResponse](#)

- 
- [QueryRequestRequest](#)
- 
- [QueryRequestResponse](#)
- 
- [QueryRequestsByReqCtxRequest](#)
- 
- [QueryRequestsByReqCtxResponse](#)
- 
- [QueryRequestsRequest](#)
- 
- [QueryRequestsResponse](#)
- 
- [QueryResponseRequest](#)
- 
- [QueryResponseResponse](#)
- 
- [QueryResponsesRequest](#)
- 
- [QueryResponsesResponse](#)
- 
- [QuerySchemaRequest](#)
- 
- [QuerySchemaResponse](#)
- 
- [QueryWithdrawAddressRequest](#)
- 
- [QueryWithdrawAddressResponse](#)
- 
- [Query](#)
- [service/tx.proto](#)
- 
- [MsgBindService](#)
- 
- [MsgBindServiceResponse](#)
- 
- [MsgCallService](#)
- 
- [MsgCallServiceResponse](#)
- 
- [MsgDefineService](#)
- 
- [MsgDefineServiceResponse](#)
- 
- [MsgDisableServiceBinding](#)
- 
- [MsgDisableServiceBindingResponse](#)
- 
- [MsgEnableServiceBinding](#)
- 
- [MsgEnableServiceBindingResponse](#)
- 
- [MsgKillRequestContext](#)
- 
- [MsgKillRequestContextResponse](#)
- 
- [MsgPauseRequestContext](#)
- 
- [MsgPauseRequestContextResponse](#)
- 
- [MsgRefundServiceDeposit](#)
- 
- [MsgRefundServiceDepositResponse](#)
- 
- [MsgRespondService](#)
- 
- [MsgRespondServiceResponse](#)
- 
- [MsgSetWithdrawAddress](#)
- 
- [MsgSetWithdrawAddressResponse](#)
- 
- [MsgStartRequestContext](#)
- 
- [MsgStartRequestContextResponse](#)
- 
- [MsgUpdateRequestContext](#)

- 
- [MsgUpdateRequestContextResponse](#)
- 
- [MsgUpdateServiceBinding](#)
- 
- [MsgUpdateServiceBindingResponse](#)
- 
- [MsgWithdrawEarnedFees](#)
- 
- [MsgWithdrawEarnedFeesResponse](#)
- 
- [Msg](#)
- [token/token.proto](#)
- 
- [Params](#)
- 
- [Token](#)
- [token/genesis.proto](#)
- 
- [GenesisState](#)
- [token/query.proto](#)
- 
- [QueryFeesRequest](#)
- 
- [QueryFeesResponse](#)
- 
- [QueryParamsRequest](#)
- 
- [QueryParamsResponse](#)
- 
- [QueryTokenRequest](#)
- 
- [QueryTokenResponse](#)
- 
- [QueryTokensRequest](#)
- 
- [QueryTokensResponse](#)
- 
- [QueryTotalBurnRequest](#)
- 
- [QueryTotalBurnResponse](#)
- 
- [Query](#)
- [token/tx.proto](#)
- 
- [MsgBurnToken](#)
- 
- [MsgBurnTokenResponse](#)
- 
- [MsgEditToken](#)
- 
- [MsgEditTokenResponse](#)
- 
- [MsgIssueToken](#)
- 
- [MsgIssueTokenResponse](#)
- 
- [MsgMintToken](#)
- 
- [MsgMintTokenResponse](#)
- 
- [MsgTransferTokenOwner](#)
- 
- [MsgTransferTokenOwnerResponse](#)
- 
- [Msg](#)
- [Scalar Value Types](#)

[Top](#)

<#>

cosmos/base/v1beta1/coin.proto

<#>

## Coin

Coin defines a token with a denomination and an amount.

NOTE: The amount field is an Int which implements the custom method signatures required by gogoproto.

Field Type Label Description denom [string](#) amount [string](#)

<#>

## DecCoin

DecCoin defines a token with a denomination and a decimal amount.

NOTE: The amount field is an Dec which implements the custom method signatures required by gogoproto.

Field Type Label Description denom [string](#) amount [string](#)

<#>

## DecProto

DecProto defines a Protobuf wrapper around a Dec object.

Field Type Label Description dec [string](#)

<#>

## IntProto

IntProto defines a Protobuf wrapper around an Int object.

Field Type Label Description int [string](#) end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

coinswap/coinswap.proto

<#>

## Input

Input defines the properties of order's input

Field Type Label Description address [string](#) coin [cosmos.base.v1beta1.Coin](#)

<#>

## Output

Output defines the properties of order's output

Field Type Label Description address [string](#) coin [cosmos.base.v1beta1.Coin](#)

<#>

## Params

Params defines token module's parameters

Field Type Label Description fee [cosmos.base.v1beta1.Coin](#)

<#>

## Pool

Field Type Label Description id [string](#) standard\_denom [string](#)

denom of base coin of the pool counterparty\_denom [string](#)

denom of counterparty coin of the pool escrow\_address [string](#)

escrow account for deposit tokens lpt\_denom [string](#)

denom of the liquidity pool coin end messagesend enumsend HasExtensionsend services

[Top](#)

## #

coinswap/genesis.proto

## #

GenesisState

GenesisState defines the coinswap module's genesis state

Field Type Label Description params [Params](#) standard\_denom [string](#) pool [Pool](#) repeated sequence [uint64](#) end messagesend enumsend HasExtensionsend services

[Top](#)

## #

cosmos/base/query/v1beta1/pagination.proto

## #

PageRequest

PageRequest is to be embedded in gRPC request messages for efficient pagination. Ex:

```
message SomeRequest { Foo some_parameter = 1; PageRequest pagination = 2; }
```

Field Type Label Description key [bytes](#)

key is a value returned in PageResponse.next\_key to begin querying the next page most efficiently. Only one of offset or key should be set. offset [uint64](#)

offset is a numeric offset that can be used when key is unavailable. It is less efficient than using key. Only one of offset or key should be set. limit [uint64](#)

limit is the total number of results to be returned in the result page. If left empty it will default to a value to be set by each app. count\_total [bool](#)

count\_total is set to true to indicate that the result set should include a count of the total number of items available for pagination in UIs. count\_total is only respected when offset is used. It is ignored when key is set.

## #

PageResponse

PageResponse is to be embedded in gRPC response messages where the corresponding request message has used PageRequest.

```
message SomeResponse { repeated Bar results = 1; PageResponse page = 2; }
```

Field Type Label Description next\_key [bytes](#)

next\_key is the key to be passed to PageRequest.key to query the next page most efficiently total [uint64](#)

total is total number of results available if PageRequest.count\_total was set, its value is undefined otherwise end messagesend enumsend HasExtensionsend services

[Top](#)

## #

coinswap/query.proto

## #

PoolInfo

Field Type Label Description id [string](#) escrow\_address [string](#)

escrow account for deposit tokens standard [cosmos.base.v1beta1.Coin](#)

main token balance token [cosmos.base.v1beta1.Coin](#)

counterparty token balance lpt [cosmos.base.v1beta1.Coin](#)

liquidity token balance fee [string](#)

liquidity pool fee

## #

QueryLiquidityPoolRequest

QueryLiquidityPoolRequest is request type for the Query/LiquidityPool RPC method

Field Type Label Description lpt\_denom [string](#)

## #

QueryLiquidityPoolResponse

QueryLiquidityPoolResponse is response type for the Query/LiquidityPool RPC method

Field Type Label Description pool [PoolInfo](#)

## #

QueryLiquidityPoolsRequest

QueryLiquidityPoolsRequest is request type for the Query/LiquidityPools RPC method

Field Type Label Description pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

## #

QueryLiquidityPoolsResponse

QueryLiquidityPoolsResponse is response type for the Query/LiquidityPools RPC method

Field Type Label Description pools [PoolInfo](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#) end messagesend  
enumsend HasExtensions

## #

Query

Query creates service with coinswap as rpc

Method Name Request Type Response Type Description HTTP Verb Endpoint LiquidityPool [QueryLiquidityPoolRequest](#)  
[QueryLiquidityPoolResponse](#) LiquidityPool returns the liquidity pool for the provided lpt\_denom GET /irismod/coinswap/pools/{lpt\_denom}  
LiquidityPools [QueryLiquidityPoolsRequest](#) [QueryLiquidityPoolsResponse](#) LiquidityPools returns all the liquidity pools available GET  
/irismod/coinswap/pools end services

[Top](#)

## #

coinswap/tx.proto

## #

MsgAddLiquidity

MsgAddLiquidity defines a msg for adding liquidity to a reserve pool

Field Type Label Description max\_token [cosmos.base.v1beta1.Coin](#) exact\_standard\_amt [string](#) min\_liquidity [string](#) deadline [int64](#) sender  
[string](#)

## #

MsgAddLiquidityResponse

MsgAddLiquidityResponse defines the Msg/AddLiquidity response type

Field Type Label Description mint\_token [cosmos.base.v1beta1.Coin](#)

## #

MsgRemoveLiquidity

MsgRemoveLiquidity defines a msg for removing liquidity from a reserve pool

Field Type Label Description withdraw\_liquidity [cosmos.base.v1beta1.Coin](#) min\_token [string](#) min\_standard\_amt [string](#) deadline [int64](#)  
sender [string](#)



## #

MsgRemoveLiquidityResponse

MsgRemoveLiquidityResponse defines the Msg/RemoveLiquidity response type

Field Type Label Description withdraw\_coins [cosmos.base.v1beta1.Coin](#) repeated

## #

MsgSwapCoinResponse

MsgSwapCoinResponse defines the Msg/SwapCoin response type

## #

MsgSwapOrder

MsgSwapOrder defines a msg for swap order

Field Type Label Description input [Input](#) output [Output](#) deadline [int64](#) is\_buy\_order [bool](#) end messagesend enumsend HasExtensions

## #

Msg

Msg defines the coinswap Msg service

Method Name Request Type Response Type Description HTTP Verb Endpoint AddLiquidity [MsgAddLiquidity](#) [MsgAddLiquidityResponse](#) AddLiquidity defines a method for depositing some tokens to the liquidity pool RemoveLiquidity [MsgRemoveLiquidity](#) [MsgRemoveLiquidityResponse](#) RemoveLiquidity defines a method for withdraw some tokens from the liquidity pool SwapCoin [MsgSwapOrder](#) [MsgSwapCoinResponse](#) SwapCoin defines a method for swapping a token with the other token from the liquidity pool end services

[Top](#)

## #

cosmos/auth/v1beta1/auth.proto

## #

BaseAccount

BaseAccount defines a base account type. It contains all the necessary fields for basic account functionality. Any custom account type should extend this type for additional functionality (e.g. vesting).

Field Type Label Description address [string](#) pub\_key [google.protobuf.Any](#) account\_number [uint64](#) sequence [uint64](#)

## #

ModuleAccount

ModuleAccount defines an account for modules that holds coins on a pool.

Field Type Label Description base\_account [BaseAccount](#) name [string](#) permissions [string](#) repeated

## #

Params

Params defines the parameters for the auth module.

Field Type Label Description max\_memo\_characters [uint64](#) tx\_sig\_limit [uint64](#) tx\_size\_cost\_per\_byte [uint64](#) sig\_verify\_cost\_ed25519 [uint64](#) sig\_verify\_cost\_secp256k1 [uint64](#) end messagesend enumsend HasExtensionsend services

[Top](#)

## #

cosmos/auth/v1beta1/genesis.proto

## #

GenesisState

GenesisState defines the auth module's genesis state.

Field Type Label Description params [Params](#)

params defines all the parameters of the module. accounts [google.protobuf.Any](#) repeated accounts are the accounts present at genesis. end messagesend enumsend HasExtensionsend services

[Top](#)

#

cosmos/auth/v1beta1/query.proto

#

QueryAccountRequest

QueryAccountRequest is the request type for the Query/Account RPC method.

Field Type Label Description address [string](#)

address defines the address to query for.

#

QueryAccountResponse

QueryAccountResponse is the response type for the Query/Account RPC method.

Field Type Label Description account [google.protobuf.Any](#)

account defines the account of the corresponding address.

#

QueryParamsRequest

QueryParamsRequest is the request type for the Query/Params RPC method.

#

QueryParamsResponse

QueryParamsResponse is the response type for the Query/Params RPC method.

Field Type Label Description params [Params](#)

params defines the parameters of the module. end messagesend enumsend HasExtensions

#

Query

Query defines the gRPC querier service.

Method Name Request Type Response Type Description HTTP Verb Endpoint Account [QueryAccountRequest](#) [QueryAccountResponse](#) Account returns account details based on address. GET /cosmos/auth/v1beta1/accounts/{address} Params [QueryParamsRequest](#) [QueryParamsResponse](#) Params queries all parameters. GET /cosmos/auth/v1beta1/params end services

[Top](#)

#

cosmos/bank/v1beta1/bank.proto

#

DenomUnit

DenomUnit represents a struct that describes a given denomination unit of the basic token.

Field Type Label Description denom [string](#)

denom represents the string name of the given denom unit (e.g uatom). exponent [uint32](#)

exponent represents power of 10 exponent that one must raise the base\_denom to in order to equal the given DenomUnit's denom 1  
denom = 1^exponent base\_denom (e.g. with a base\_denom of uatom, one can create a DenomUnit of 'atom' with exponent = 6, thus: 1  
atom = 10^6 uatom). aliases [string](#) repeated aliases is a list of string aliases for the given denom

#

## Input

Input models transaction input.

Field Type Label Description address [string](#) coins [cosmos.base.v1beta1.Coin](#) repeated

#

## Metadata

Metadata represents a struct that describes a basic token.

Field Type Label Description description [string](#) denom\_units [DenomUnit](#) repeated denom\_units represents the list of DenomUnit's for a given coin base [string](#)

base represents the base denom (should be the DenomUnit with exponent = 0). display[string](#)

display indicates the suggested denom that should be displayed in clients.

#

## Output

Output models transaction outputs.

Field Type Label Description address [string](#) coins [cosmos.base.v1beta1.Coin](#) repeated

#

## Params

Params defines the parameters for the bank module.

Field Type Label Description send\_enabled [SendEnabled](#) repeated default\_send\_enabled [bool](#)

#

## SendEnabled

SendEnabled maps coin denom to a send\_enabled status (whether a denom is sendable).

Field Type Label Description denom [string](#) enabled [bool](#)

#

## Supply

Supply represents a struct that passively keeps track of the total supply amounts in the network.

Field Type Label Description total [cosmos.base.v1beta1.Coin](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

#

cosmos/bank/v1beta1/genesis.proto

#

## Balance

Balance defines an account address and balance pair used in the bank module's genesis state.

Field Type Label Description address [string](#)

address is the address of the balance holder. coins[cosmos.base.v1beta1.Coin](#) repeated coins defines the different coins this balance holds.

#

## GenesisState

GenesisState defines the bank module's genesis state.

Field Type Label Description params [Params](#)

params defines all the paramaters of the module. balances[Balance](#) repeated balances is an array containing the balances of all the accounts. supply [cosmos.base.v1beta1.Coin](#) repeated supply represents the total supply. denom\_metadata[Metadata](#) repeated denom\_metadata defines the metadata of the differents coins. end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/bank/v1beta1/query.proto

<#>

QueryAllBalancesRequest

QueryBalanceRequest is the request type for the Query/AllBalances RPC method.

Field Type Label Description address [string](#)

address is the address to query balances for. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

<#>

QueryAllBalancesResponse

QueryAllBalancesResponse is the response type for the Query/AllBalances RPC method.

Field Type Label Description balances [cosmos.base.v1beta1.Coin](#) repeated balances is the balances of all the coins. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response.

<#>

QueryBalanceRequest

QueryBalanceRequest is the request type for the Query/Balance RPC method.

Field Type Label Description address [string](#)

address is the address to query balances for. denom [string](#)

denom is the coin denom to query balances for.

<#>

QueryBalanceResponse

QueryBalanceResponse is the response type for the Query/Balance RPC method.

Field Type Label Description balance [cosmos.base.v1beta1.Coin](#)

balance is the balance of the coin.

<#>

QueryDenomMetadataRequest

QueryDenomMetadataRequest is the request type for the Query/DenomMetadata RPC method.

Field Type Label Description denom [string](#)

denom is the coin denom to query the metadata for.

<#>

QueryDenomMetadataResponse

QueryDenomMetadataResponse is the response type for the Query/DenomMetadata RPC method.

Field Type Label Description metadata [Metadata](#)

metadata describes and provides all the client information for the requested token.

<#>

QueryDenomsMetadataRequest

QueryDenomsMetadataRequest is the request type for the Query/DenomsMetadata RPC method.

Field Type Label Description pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

QueryDenomsMetadataResponse

QueryDenomsMetadataResponse is the response type for the Query/DenomsMetadata RPC method.

Field Type Label Description metadatas [Metadata](#) repeated metadata provides the client information for all the registered tokens.  
pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response.

#

QueryParamsRequest

QueryParamsRequest defines the request type for querying x/bank parameters.

#

QueryParamsResponse

QueryParamsResponse defines the response type for querying x/bank parameters.

Field Type Label Description params [Params](#)

#

QuerySupplyOfRequest

QuerySupplyOfRequest is the request type for the Query/SupplyOf RPC method.

Field Type Label Description denom [string](#)

denom is the coin denom to query balances for.

#

QuerySupplyOfResponse

QuerySupplyOfResponse is the response type for the Query/SupplyOf RPC method.

Field Type Label Description amount [cosmos.base.v1beta1.Coin](#)

amount is the supply of the coin.

#

QueryTotalSupplyRequest

QueryTotalSupplyRequest is the request type for the Query/TotalSupply RPC method.

#

QueryTotalSupplyResponse

QueryTotalSupplyResponse is the response type for the Query/TotalSupply RPC method

Field Type Label Description supply [cosmos.base.v1beta1.Coin](#) repeated supply is the supply of the coins end messagesend enumsend  
HasExtensions

#

Query

Query defines the gRPC querier service.

Method Name Request Type Response Type Description HTTP Verb Endpoint Balance [QueryBalanceRequest](#) [QueryBalanceResponse](#)  
Balance queries the balance of a single coin for a single account. GET /cosmos/bank/v1beta1/balances/{address}/{denom} AllBalances  
[QueryAllBalancesRequest](#) [QueryAllBalancesResponse](#) AllBalances queries the balance of all coins for a single account. GET  
/cosmos/bank/v1beta1/balances/{address} TotalSupply [QueryTotalSupplyRequest](#) [QueryTotalSupplyResponse](#) TotalSupply queries the  
total supply of all coins. GET /cosmos/bank/v1beta1/supply SupplyOf [QuerySupplyOfRequest](#) [QuerySupplyOfResponse](#) SupplyOf queries  
the supply of a single coin. GET /cosmos/bank/v1beta1/supply/{denom} Params [QueryParamsRequest](#) [QueryParamsResponse](#) Params  
queries the parameters of x/bank module. GET /cosmos/bank/v1beta1/params DenomMetadata [QueryDenomMetadataRequest](#)  
[QueryDenomMetadataResponse](#) DenomsMetadata queries the client metadata of a given coin denomination. GET  
/cosmos/bank/v1beta1/denoms\_metadata/{denom} DenomsMetadata [QueryDenomsMetadataRequest](#) [QueryDenomsMetadataResponse](#)  
DenomsMetadata queries the client metadata for all registered coin denominations. GET /cosmos/bank/v1beta1/denoms\_metadata end

services

[Top](#)

#

cosmos/bank/v1beta1/tx.proto

#

MsgMultiSend

MsgMultiSend represents an arbitrary multi-in, multi-out send message.

Field Type Label Description inputs [Input](#) repeated outputs [Output](#) repeated

#

MsgMultiSendResponse

MsgMultiSendResponse defines the Msg/MultiSend response type.

#

MsgSend

MsgSend represents a message to send coins from one account to another.

Field Type Label Description from\_address [string](#) to\_address [string](#) amount [cosmos.base.v1beta1.Coin](#) repeated

#

MsgSendResponse

MsgSendResponse defines the Msg/Send response type.

end messagesend enumsend HasExtensions

#

Msg

Msg defines the bank Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint Send [MsgSend](#) [MsgSendResponse](#) Send defines a method for sending coins from one account to another account. MultiSend [MsgMultiSend](#) [MsgMultiSendResponse](#) MultiSend defines a method for sending coins from some accounts to other accounts. end services

[Top](#)

#

cosmos/base/abci/v1beta1/abci.proto

#

ABCIMessageLog

ABCIMessageLog defines a structure containing an indexed tx ABCI message log.

Field Type Label Description msg\_index [uint32](#) log [string](#) events [StringEvent](#) repeated Events contains a slice of Event objects that were emitted during some execution.

#

Attribute

Attribute defines an attribute wrapper where the key and value are strings instead of raw bytes.

Field Type Label Description key [string](#) value [string](#)

#

GasInfo

GasInfo defines tx execution gas context.

Field Type Label Description gas\_wanted [uint64](#)

GasWanted is the maximum units of work we allow this tx to perform. gas\_used [uint64](#)

GasUsed is the amount of gas actually consumed.

#

MsgData

MsgData defines the data returned in a Result object during message execution.

Field Type Label Description msg\_type [string](#) data [bytes](#)

#

Result

Result is the union of ResponseFormat and ResponseCheckTx.

Field Type Label Description data [bytes](#)

Data is any data returned from message or handler execution. It MUST be length prefixed in order to separate data from multiple message executions. log [string](#)

Log contains the log information from message or handler execution. events [tendermint.abci.Event](#) repeated Events contains a slice of Event objects that were emitted during message or handler execution.

#

SearchTxResult

SearchTxResult defines a structure for querying txs pageable

Field Type Label Description total\_count [uint64](#)

Count of all txs count [uint64](#)

Count of txs in current page page\_number [uint64](#)

Index of current page, start from 1 page\_total [uint64](#)

Count of total pages limit [uint64](#)

Max count txs per page txs [TxResponse](#) repeated List of txs in current page

#

SimulationResponse

SimulationResponse defines the response generated when a transaction is successfully simulated.

Field Type Label Description gas\_info [GasInfo](#) result [Result](#)

#

StringEvent

StringEvent defines an Event object wrapper where all the attributes contain key/value pairs that are strings instead of raw bytes.

Field Type Label Description type [string](#) attributes [Attribute](#) repeated

#

TxMsgData

TxMsgData defines a list of MsgData. A transaction will have a MsgData object for each message.

Field Type Label Description data [MsgData](#) repeated

#

TxResponse

TxResponse defines a structure containing relevant tx data and metadata. The tags are stringified and the log is JSON decoded.

Field Type Label Description height [int64](#)

The block height txhash [string](#)

The transaction hash. codespace [string](#)

Namespace for the Code code [uint32](#)

Response code. data [string](#)

Result bytes, if any. raw\_log [string](#)

The output of the application's logger (raw string). May be non-deterministic. logs [ABCIMessageLog](#) repeated The output of the application's logger (typed). May be non-deterministic. info [string](#)

Additional information. May be non-deterministic. gas\_wanted [int64](#)

Amount of gas requested for transaction. gas\_used [int64](#)

Amount of gas consumed by transaction. tx [google.protobuf.Any](#)

The request transaction bytes. timestamp [string](#)

Time of the previous block. For heights > 1, it's the weighted median of the timestamps of the valid votes in the block.LastCommit. For height == 1, it's genesis time. end messagesend enumsend HasExtensionsend services

[Top](#)

## #

cosmos/base/kv/v1beta1/kv.proto

## #

Pair

Pair defines a key/value bytes tuple.

Field Type Label Description key [bytes](#) value [bytes](#)

## #

Pairs

Pairs defines a repeated slice of Pair objects.

Field Type Label Description pairs [Pair](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

## #

cosmos/base/reflection/v1beta1/reflection.proto

## #

ListAllInterfacesRequest

ListAllInterfacesRequest is the request type of the ListAllInterfaces RPC.

## #

ListAllInterfacesResponse

ListAllInterfacesResponse is the response type of the ListAllInterfaces RPC.

Field Type Label Description interface\_names [string](#) repeated interface\_names is an array of all the registered interfaces.

## #

ListImplementationsRequest

ListImplementationsRequest is the request type of the ListImplementations RPC.

Field Type Label Description interface\_name [string](#)

interface\_name defines the interface to query the implementations for.

## #

ListImplementationsResponse



ListImplementationsResponse is the response type of the ListImplementations RPC.

Field Type Label Description implementation\_message\_names [string](#) repeated end messagesend enumsend HasExtensions

<#>

ReflectionService

ReflectionService defines a service for interface reflection.

Method Name Request Type Response Type Description HTTP Verb Endpoint ListAllInterfaces [ListAllInterfacesRequest](#) [ListAllInterfacesResponse](#) ListAllInterfaces lists all the interfaces registered in the interface registry. GET /cosmos/base/reflection/v1beta1/interfaces ListImplementations [ListImplementationsRequest](#) [ListImplementationsResponse](#) ListImplementations list all the concrete types that implement a given interface. GET /cosmos/base/reflection/v1beta1/interfaces/{interface\_name}/implementations end services

[Top](#)

<#>

cosmos/base/snapshots/v1beta1/snapshot.proto

<#>

Metadata

Metadata contains SDK-specific snapshot metadata.

Field Type Label Description chunk\_hashes [bytes](#) repeated SHA-256 chunk hashes

<#>

Snapshot

Snapshot contains Tendermint state sync snapshot info.

Field Type Label Description height [uint64](#) format [uint32](#) chunks [uint32](#) hash [bytes](#) metadata [Metadata](#) end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/base/store/v1beta1/commit\_info.proto

<#>

CommitID

CommitID defines the commitment information when a specific store is committed.

Field Type Label Description version [int64](#) hash [bytes](#)

<#>

CommitInfo

CommitInfo defines commit information used by the multi-store when committing a version/height.

Field Type Label Description version [int64](#) store\_infos [StoreInfo](#) repeated

<#>

StoreInfo

StoreInfo defines store-specific commit information. It contains a reference between a store name and the commit ID.

Field Type Label Description name [string](#) commit\_id [CommitID](#) end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/base/store/v1beta1/snapshot.proto

<#>

## SnapshotIAVLItem

SnapshotIAVLItem is an exported IAVL node.

Field Type Label Description key [bytes](#) value [bytes](#) version [int64](#) height [int32](#)

#

## SnapshotItem

SnapshotItem is an item contained in a rootmulti.Store snapshot.

Field Type Label Description store [SnapshotStoreItem](#) iavl [SnapshotIAVLItem](#)

#

## SnapshotStoreItem

SnapshotStoreItem contains metadata about a snapshotted store.

Field Type Label Description name [string](#) end messagesend enumsend HasExtensionsend services

[Top](#)

#

## cosmos/base/tendermint/v1beta1/query.proto

#

### GetBlockByHeightRequest

GetBlockByHeightRequest is the request type for the Query/GetBlockByHeight RPC method.

Field Type Label Description height [int64](#)

#

### GetBlockByHeightResponse

GetBlockByHeightResponse is the response type for the Query/GetBlockByHeight RPC method.

Field Type Label Description block\_id [tendermint.types.BlockID](#) block [tendermint.types.Block](#)

#

### GetLatestBlockRequest

GetLatestBlockRequest is the request type for the Query/GetLatestBlock RPC method.

#

### GetLatestBlockResponse

GetLatestBlockResponse is the response type for the Query/GetLatestBlock RPC method.

Field Type Label Description block\_id [tendermint.types.BlockID](#) block [tendermint.types.Block](#)

#

### GetLatestValidatorSetRequest

GetLatestValidatorSetRequest is the request type for the Query/GetValidatorSetByHeight RPC method.

Field Type Label Description pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an pagination for the request.

#

### GetLatestValidatorSetResponse

GetLatestValidatorSetResponse is the response type for the Query/GetValidatorSetByHeight RPC method.

Field Type Label Description block\_height [int64](#) validators [Validator](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines an pagination for the response.

## #

### GetNodeInfoRequest

GetNodeInfoRequest is the request type for the Query/GetNodeInfo RPC method.

## #

### GetNodeInfoResponse

GetNodeInfoResponse is the request type for the Query/GetNodeInfo RPC method.

Field Type Label Description default\_node\_info [tendermint.p2p.DefaultNodeInfo](#) application\_version [VersionInfo](#)

## #

### GetSyncingRequest

GetSyncingRequest is the request type for the Query/GetSyncing RPC method.

## #

### GetSyncingResponse

GetSyncingResponse is the response type for the Query/GetSyncing RPC method.

Field Type Label Description syncing [bool](#)

## #

### GetValidatorSetByHeightRequest

GetValidatorSetByHeightRequest is the request type for the Query/GetValidatorSetByHeight RPC method.

Field Type Label Description height [int64](#) pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an pagination for the request.

## #

### GetValidatorSetByHeightResponse

GetValidatorSetByHeightResponse is the response type for the Query/GetValidatorSetByHeight RPC method.

Field Type Label Description block\_height [int64](#) validators [Validator](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines an pagination for the response.

## #

### Module

Module is the type for VersionInfo

Field Type Label Description path [string](#)

module path version [string](#)

module version sum [string](#)

checksum

## #

### Validator

Validator is the type for the validator-set.

Field Type Label Description address [string](#) pub\_key [google.protobuf.Any](#) voting\_power [int64](#) proposer\_priority [int64](#)

## #

### VersionInfo

VersionInfo is the type for the GetNodeInfoResponse message.

Field Type Label Description name [string](#) app\_name [string](#) version [string](#) git\_commit [string](#) build\_tags [string](#) go\_version [string](#) build\_deps [Module](#) repeated cosmos\_sdk\_version [string](#) end messagesend enumsend HasExtensions

## #

### Service

Service defines the gRPC querier service for tendermint queries.

Method Name	Request Type	Response Type	Description	HTTP Verb	Endpoint
GetNodeInfo	<a href="#">GetNodeInfoRequest</a>	<a href="#">GetNodeInfoResponse</a>	GetNodeInfo queries the current node info.	GET	/cosmos/base/tendermint/v1beta1/node_info
GetSyncing	<a href="#">GetSyncingRequest</a>	<a href="#">GetSyncingResponse</a>	GetSyncing queries node syncing.	GET	/cosmos/base/tendermint/v1beta1/syncing
GetLatestBlock	<a href="#">GetLatestBlockRequest</a>	<a href="#">GetLatestBlockResponse</a>	GetLatestBlock returns the latest block.	GET	/cosmos/base/tendermint/v1beta1/blocks/latest
GetBlockByHeight	<a href="#">GetBlockByHeightRequest</a>	<a href="#">GetBlockByHeightResponse</a>	GetBlockByHeight queries block for given height.	GET	/cosmos/base/tendermint/v1beta1/blocks/{height}
GetLatestValidatorSet	<a href="#">GetLatestValidatorSetRequest</a>	<a href="#">GetLatestValidatorSetResponse</a>	GetLatestValidatorSet queries latest validator-set.	GET	/cosmos/base/tendermint/v1beta1/validatorsets/latest
GetValidatorSetByHeight	<a href="#">GetValidatorSetByHeightRequest</a>	<a href="#">GetValidatorSetByHeightResponse</a>	GetValidatorSetByHeight queries validator-set at a given height.	GET	/cosmos/base/tendermint/v1beta1/validatorsets/{height}

end services

[Top](#)

## #

cosmos/capability/v1beta1/capability.proto

## #

### Capability

Capability defines an implementation of an object capability. The index provided to a Capability must be globally unique.

Field	Type	Label	Description
index	<a href="#">uint64</a>		

## #

### CapabilityOwners

CapabilityOwners defines a set of owners of a single Capability. The set of owners must be unique.

Field	Type	Label	Description
owners	<a href="#">Owner</a>	repeated	

## #

### Owner

Owner defines a single capability owner. An owner is defined by the name of capability and the module name.

Field	Type	Label	Description
module	<a href="#">string</a>		
name	<a href="#">string</a>		
end messagesend	enumsend		
HasExtensionsend	services		

[Top](#)

## #

cosmos/capability/v1beta1/genesis.proto

## #

### GenesisOwners

GenesisOwners defines the capability owners with their corresponding index.

Field	Type	Label	Description
index	<a href="#">uint64</a>		

index is the index of the capability owner. index\_owners[CapabilityOwners](#)

index\_owners are the owners at the given index.

## #

### GenesisState

GenesisState defines the capability module's genesis state.

Field	Type	Label	Description
index	<a href="#">uint64</a>		

index is the capability global index. owners [GenesisOwners](#) repeated owners represents a map from index to owners of the capability index  
index key is string to allow amino marshalling. end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/crisis/v1beta1/genesis.proto

<#>

GenesisState

GenesisState defines the crisis module's genesis state.

Field Type Label Description constant\_fee [cosmos.base.v1beta1.Coin](#)

constant\_fee is the fee used to verify the invariant in the crisis module. end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/crisis/v1beta1/tx.proto

<#>

MsgVerifyInvariant

MsgVerifyInvariant represents a message to verify a particular invariance.

Field Type Label Description sender [string](#) invariant\_module\_name [string](#) invariant\_route [string](#)

<#>

MsgVerifyInvariantResponse

MsgVerifyInvariantResponse defines the Msg/VerifyInvariant response type.

end messagesend enumsend HasExtensions

<#>

Msg

Msg defines the bank Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint VerifyInvariant [MsgVerifyInvariant](#)  
[MsgVerifyInvariantResponse](#) VerifyInvariant defines a method to verify a particular invariance. end services

[Top](#)

<#>

cosmos/crypto/ed25519/keys.proto

<#>

PrivKey

PrivKey defines a ed25519 private key.

Field Type Label Description key [bytes](#)

<#>

PubKey

PubKey defines a ed25519 public key Key is the compressed form of the pubkey. The first byte depends is a 0x02 byte if the y-coordinate is the lexicographically largest of the two associated with the x-coordinate. Otherwise the first byte is a 0x03. This prefix is followed with the x-coordinate.

Field Type Label Description key [bytes](#) end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/crypto/multisig/keys.proto

<#>

## LegacyAminoPubKey

LegacyAminoPubKey specifies a public key type which nests multiple public keys and a threshold, it uses legacy amino address rules.

Field Type Label Description threshold [uint32](#) public\_keys [google.protobuf.Any](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/crypto/multisig/v1beta1/multisig.proto

<#>

## CompactBitArray

CompactBitArray is an implementation of a space efficient bit array. This is used to ensure that the encoded data takes up a minimal amount of space after proto encoding. This is not thread safe, and is not intended for concurrent usage.

Field Type Label Description extra\_bits\_stored [uint32](#) elems [bytes](#)

<#>

## MultiSignature

MultiSignature wraps the signatures from a multisig.LegacyAminoPubKey. See cosmos.tx.v1betata1.ModelInfo.Multi for how to specify which signers signed and with which modes.

Field Type Label Description signatures [bytes](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/crypto/secp256k1/keys.proto

<#>

## PrivKey

PrivKey defines a secp256k1 private key.

Field Type Label Description key [bytes](#)

<#>

## PubKey

PubKey defines a secp256k1 public key Key is the compressed form of the pubkey. The first byte depends is a 0x02 byte if the y-coordinate is the lexicographically largest of the two associated with the x-coordinate. Otherwise the first byte is a 0x03. This prefix is followed with the x-coordinate.

Field Type Label Description key [bytes](#) end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/distribution/v1beta1/distribution.proto

<#>

## CommunityPoolSpendProposal

CommunityPoolSpendProposal details a proposal for use of community funds, together with how many coins are proposed to be spent, and to which recipient account.

Field Type Label Description title [string](#) description [string](#) recipient [string](#) amount [cosmos.base.v1beta1.Coin](#) repeated

<#>

## CommunityPoolSpendProposalWithDeposit

CommunityPoolSpendProposalWithDeposit defines a CommunityPoolSpendProposal with a deposit

Field Type Label Description title [string](#) description [string](#) recipient [string](#) amount [string](#) deposit [string](#)

#

#### DelegationDelegatorReward

DelegationDelegatorReward represents the properties of a delegator's delegation reward.

Field Type Label Description validator\_address [string](#) reward [cosmos.base.v1beta1.DecCoin](#) repeated

#

#### DelegatorStartingInfo

DelegatorStartingInfo represents the starting info for a delegator reward period. It tracks the previous validator period, the delegation's amount of staking token, and the creation height (to check later on if any slashes have occurred). NOTE: Even though validators are slashed to whole staking tokens, the delegators within the validator may be left with less than a full token, thus sdk.Dec is used.

Field Type Label Description previous\_period [uint64](#) stake [string](#) height [uint64](#)

#

#### FeePool

FeePool is the global fee pool for distribution.

Field Type Label Description community\_pool [cosmos.base.v1beta1.DecCoin](#) repeated

#

#### Params

Params defines the set of params for the distribution module.

Field Type Label Description community\_tax [string](#) base\_proposer\_reward [string](#) bonus\_proposer\_reward [string](#) withdraw\_addr\_enabled [bool](#)

#

#### ValidatorAccumulatedCommission

ValidatorAccumulatedCommission represents accumulated commission for a validator kept as a running counter, can be withdrawn at any time.

Field Type Label Description commission [cosmos.base.v1beta1.DecCoin](#) repeated

#

#### ValidatorCurrentRewards

ValidatorCurrentRewards represents current rewards and current period for a validator kept as a running counter and incremented each block as long as the validator's tokens remain constant.

Field Type Label Description rewards [cosmos.base.v1beta1.DecCoin](#) repeated period [uint64](#)

#

#### ValidatorHistoricalRewards

ValidatorHistoricalRewards represents historical rewards for a validator. Height is implicit within the store key. Cumulative reward ratio is the sum from the zeroeth period until this period of rewards / tokens, per the spec. The reference count indicates the number of objects which might need to reference this historical entry at any point. ReferenceCount = number of outstanding delegations which ended the associated period (and might need to read that record)

- number of slashes which ended the associated period (and might need to read that record)
- one per validator for the zeroeth period, set on initialization

Field Type Label Description cumulative\_reward\_ratio [cosmos.base.v1beta1.DecCoin](#) repeated reference\_count [uint32](#)

#

#### ValidatorOutstandingRewards

ValidatorOutstandingRewards represents outstanding (un-withdrawn) rewards for a validator inexpensive to track, allows simple sanity checks.

Field Type Label Description rewards [cosmos.base.v1beta1.DecCoin](#) repeated

#

## ValidatorSlashEvent

ValidatorSlashEvent represents a validator slash event. Height is implicit within the store key. This is needed to calculate appropriate amount of staking tokens for delegations which are withdrawn after a slash has occurred.

Field Type Label Description validator\_period [uint64](#) fraction [string](#)

<#>

## ValidatorSlashEvents

ValidatorSlashEvents is a collection of ValidatorSlashEvent messages.

Field Type Label Description validator\_slash\_events [ValidatorSlashEvent](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/distribution/v1beta1/genesis.proto

<#>

## DelegatorStartingInfoRecord

DelegatorStartingInfoRecord used for import / export via genesis json.

Field Type Label Description delegator\_address [string](#)

delegator\_address is the address of the delegator. validator\_address [string](#)

validator\_address is the address of the validator. starting\_info [DelegatorStartingInfo](#)

starting\_info defines the starting info of a delegator.

<#>

## DelegatorWithdrawInfo

DelegatorWithdrawInfo is the address for where distributions rewards are withdrawn to by default this struct is only used at genesis to feed in default withdraw addresses.

Field Type Label Description delegator\_address [string](#)

delegator\_address is the address of the delegator. withdraw\_address [string](#)

withdraw\_address is the address to withdraw the delegation rewards to.

<#>

## GenesisState

GenesisState defines the distribution module's genesis state.

Field Type Label Description params [Params](#)

params defines all the paramaters of the module. fee\_pool [FeePool](#)

fee\_pool defines the fee pool at genesis. delegator\_withdraw\_infos [DelegatorWithdrawInfo](#) repeated fee\_pool defines the delegator withdraw infos at genesis. previous\_proposer [string](#)

fee\_pool defines the previous proposer at genesis. outstanding\_rewards [ValidatorOutstandingRewardsRecord](#) repeated fee\_pool defines the outstanding rewards of all validators at genesis. validator\_accumulated\_commissions [ValidatorAccumulatedCommissionRecord](#) repeated fee\_pool defines the accumulated commissions of all validators at genesis. validator\_historical\_rewards [ValidatorHistoricalRewardsRecord](#) repeated fee\_pool defines the historical rewards of all validators at genesis. validator\_current\_rewards [ValidatorCurrentRewardsRecord](#) repeated fee\_pool defines the current rewards of all validators at genesis. delegator\_starting\_infos [DelegatorStartingInfoRecord](#) repeated fee\_pool defines the delegator starting infos at genesis. validator\_slash\_events [ValidatorSlashEventRecord](#) repeated fee\_pool defines the validator slash events at genesis.

<#>

## ValidatorAccumulatedCommissionRecord

ValidatorAccumulatedCommissionRecord is used for import / export via genesis json.

Field Type Label Description validator\_address [string](#)

validator\_address is the address of the validator. accumulated [ValidatorAccumulatedCommission](#)



accumulated is the accumulated commission of a validator.

<#>

ValidatorCurrentRewardsRecord

ValidatorCurrentRewardsRecord is used for import / export via genesis json.

Field Type Label Description validator\_address [string](#)

validator\_address is the address of the validator. rewards [ValidatorCurrentRewards](#)

rewards defines the current rewards of a validator.

<#>

ValidatorHistoricalRewardsRecord

ValidatorHistoricalRewardsRecord is used for import / export via genesis json.

Field Type Label Description validator\_address [string](#)

validator\_address is the address of the validator. period [uint64](#)

period defines the period the historical rewards apply to. rewards [ValidatorHistoricalRewards](#)

rewards defines the historical rewards of a validator.

<#>

ValidatorOutstandingRewardsRecord

ValidatorOutstandingRewardsRecord is used for import/export via genesis json.

Field Type Label Description validator\_address [string](#)

validator\_address is the address of the validator. outstanding\_rewards [cosmos.base.v1beta1.DecCoin](#) repeated outstanding\_rewards represents the outstanding rewards of a validator.

<#>

ValidatorSlashEventRecord

ValidatorSlashEventRecord is used for import / export via genesis json.

Field Type Label Description validator\_address [string](#)

validator\_address is the address of the validator. height [uint64](#)

height defines the block height at which the slash event occurred. period [uint64](#)

period is the period of the slash event. validator\_slash\_event [ValidatorSlashEvent](#)

validator\_slash\_event describes the slash event. end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/distribution/v1beta1/query.proto

<#>

QueryCommunityPoolRequest

QueryCommunityPoolRequest is the request type for the Query/CommunityPool RPC method.

<#>

QueryCommunityPoolResponse

QueryCommunityPoolResponse is the response type for the Query/CommunityPool RPC method.

Field Type Label Description pool [cosmos.base.v1beta1.DecCoin](#) repeated pool defines community pool's coins.

<#>

QueryDelegationRewardsRequest

QueryDelegationRewardsRequest is the request type for the Query/DelegationRewards RPC method.

Field Type Label Description delegator\_address [string](#)

delegator\_address defines the delegator address to query for. validator\_address [string](#)

validator\_address defines the validator address to query for.

#

QueryDelegationRewardsResponse

QueryDelegationRewardsResponse is the response type for the Query/DelegationRewards RPC method.

Field Type Label Description rewards [cosmos.base.v1beta1.DecCoin](#) repeated rewards defines the rewards accrued by a delegation.

#

QueryDelegationTotalRewardsRequest

QueryDelegationTotalRewardsRequest is the request type for the Query/DelegationTotalRewards RPC method.

Field Type Label Description delegator\_address [string](#)

delegator\_address defines the delegator address to query for.

#

QueryDelegationTotalRewardsResponse

QueryDelegationTotalRewardsResponse is the response type for the Query/DelegationTotalRewards RPC method.

Field Type Label Description rewards [DelegationDelegatorReward](#) repeated rewards defines all the rewards accrued by a delegator. total [cosmos.base.v1beta1.DecCoin](#) repeated total defines the sum of all the rewards.

#

QueryDelegatorValidatorsRequest

QueryDelegatorValidatorsRequest is the request type for the Query/DelegatorValidators RPC method.

Field Type Label Description delegator\_address [string](#)

delegator\_address defines the delegator address to query for.

#

QueryDelegatorValidatorsResponse

QueryDelegatorValidatorsResponse is the response type for the Query/DelegatorValidators RPC method.

Field Type Label Description validators [string](#) repeated validators defines the validators a delegator is delegating for.

#

QueryDelegatorWithdrawAddressRequest

QueryDelegatorWithdrawAddressRequest is the request type for the Query/DelegatorWithdrawAddress RPC method.

Field Type Label Description delegator\_address [string](#)

delegator\_address defines the delegator address to query for.

#

QueryDelegatorWithdrawAddressResponse

QueryDelegatorWithdrawAddressResponse is the response type for the Query/DelegatorWithdrawAddress RPC method.

Field Type Label Description withdraw\_address [string](#)

withdraw\_address defines the delegator address to query for.

#

QueryParamsRequest

QueryParamsRequest is the request type for the Query/Params RPC method.

#

QueryParamsResponse

QueryParamsResponse is the response type for the Query/Params RPC method.

Field Type Label Description params [Params](#)

params defines the parameters of the module.

#

QueryValidatorCommissionRequest

QueryValidatorCommissionRequest is the request type for the Query/ValidatorCommission RPC method

Field Type Label Description validator\_address [string](#)

validator\_address defines the validator address to query for.

#

QueryValidatorCommissionResponse

QueryValidatorCommissionResponse is the response type for the Query/ValidatorCommission RPC method

Field Type Label Description commission [ValidatorAccumulatedCommission](#)

commission defines the commission the validator received.

#

QueryValidatorOutstandingRewardsRequest

QueryValidatorOutstandingRewardsRequest is the request type for the Query/ValidatorOutstandingRewards RPC method.

Field Type Label Description validator\_address [string](#)

validator\_address defines the validator address to query for.

#

QueryValidatorOutstandingRewardsResponse

QueryValidatorOutstandingRewardsResponse is the response type for the Query/ValidatorOutstandingRewards RPC method.

Field Type Label Description rewards [ValidatorOutstandingRewards](#)

#

QueryValidatorSlashesRequest

QueryValidatorSlashesRequest is the request type for the Query/ValidatorSlashes RPC method

Field Type Label Description validator\_address [string](#)

validator\_address defines the validator address to query for. starting\_height [uint64](#)

starting\_height defines the optional starting height to query the slashes. ending\_height [uint64](#)

starting\_height defines the optional ending height to query the slashes. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

QueryValidatorSlashesResponse

QueryValidatorSlashesResponse is the response type for the Query/ValidatorSlashes RPC method.

Field Type Label Description slashes [ValidatorSlashEvent](#) repeated slashes defines the slashes the validator received. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response. end messagesend enumsend HasExtensions

#

Query

Query defines the gRPC querier service for distribution module.

Method Name Request Type Response Type Description HTTP Verb Endpoint Params [QueryParamsRequest](#) [QueryParamsResponse](#)  
Params queries params of the distribution module. GET /cosmos/distribution/v1beta1/params ValidatorOutstandingRewards  
[QueryValidatorOutstandingRewardsRequest](#) [QueryValidatorOutstandingRewardsResponse](#) ValidatorOutstandingRewards queries rewards of a validator address. GET /cosmos/distribution/v1beta1/validators/{validator\_address}/outstanding\_rewards ValidatorCommission  
[QueryValidatorCommissionRequest](#) [QueryValidatorCommissionResponse](#) ValidatorCommission queries accumulated commission for a validator. GET /cosmos/distribution/v1beta1/validators/{validator\_address}/commission ValidatorSlashes [QueryValidatorSlashesRequest](#)  
[QueryValidatorSlashesResponse](#) ValidatorSlashes queries slash events of a validator. GET /cosmos/distribution/v1beta1/validators/{validator\_address}/slashes DelegationRewards [QueryDelegationRewardsRequest](#)  
[QueryDelegationRewardsResponse](#) DelegationRewards queries the total rewards accrued by a delegation. GET /cosmos/distribution/v1beta1/delegators/{delegator\_address}/rewards/{validator\_address} DelegationTotalRewards  
[QueryDelegationTotalRewardsRequest](#) [QueryDelegationTotalRewardsResponse](#) DelegationTotalRewards queries the total rewards accrued by a each validator. GET /cosmos/distribution/v1beta1/delegators/{delegator\_address}/rewards DelegatorValidators  
[QueryDelegatorValidatorsRequest](#) [QueryDelegatorValidatorsResponse](#) DelegatorValidators queries the validators of a delegator. GET /cosmos/distribution/v1beta1/delegators/{delegator\_address}/validators DelegatorWithdrawAddress  
[QueryDelegatorWithdrawAddressRequest](#) [QueryDelegatorWithdrawAddressResponse](#) DelegatorWithdrawAddress queries withdraw address of a delegator. GET /cosmos/distribution/v1beta1/delegators/{delegator\_address}/withdraw\_address CommunityPool  
[QueryCommunityPoolRequest](#) [QueryCommunityPoolResponse](#) CommunityPool queries the community pool coins. GET /cosmos/distribution/v1beta1/community\_pool end services

[Top](#)

#

cosmos/distribution/v1beta1/tx.proto

#

MsgFundCommunityPool

MsgFundCommunityPool allows an account to directly fund the community pool.

Field Type Label Description amount [cosmos.base.v1beta1.Coin](#) repeated depositor [string](#)

#

MsgFundCommunityPoolResponse

MsgFundCommunityPoolResponse defines the Msg/FundCommunityPool response type.

#

MsgSetWithdrawAddress

MsgSetWithdrawAddress sets the withdraw address for a delegator (or validator self-delegation).

Field Type Label Description delegator\_address [string](#) withdraw\_address [string](#)

#

MsgSetWithdrawAddressResponse

MsgSetWithdrawAddressResponse defines the Msg/SetWithdrawAddress response type.

#

MsgWithdrawDelegatorReward

MsgWithdrawDelegatorReward represents delegation withdrawal to a delegator from a single validator.

Field Type Label Description delegator\_address [string](#) validator\_address [string](#)

#

MsgWithdrawDelegatorRewardResponse

MsgWithdrawDelegatorRewardResponse defines the Msg/WithdrawDelegatorReward response type.

#

MsgWithdrawValidatorCommission

MsgWithdrawValidatorCommission withdraws the full commission to the validator address.

Field Type Label Description validator\_address [string](#)

<#>

MsgWithdrawValidatorCommissionResponse

MsgWithdrawValidatorCommissionResponse defines the Msg/WithdrawValidatorCommission response type.

end messagesend enumsend HasExtensions

<#>

Msg

Msg defines the distribution Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint SetWithdrawAddress [MsgSetWithdrawAddress](#) [MsgSetWithdrawAddressResponse](#) SetWithdrawAddress defines a method to change the withdraw address for a delegator (or validator self-delegation). WithdrawDelegatorReward [MsgWithdrawDelegatorReward](#) [MsgWithdrawDelegatorRewardResponse](#) WithdrawDelegatorReward defines a method to withdraw rewards of delegator from a single validator. WithdrawValidatorCommission [MsgWithdrawValidatorCommission](#) [MsgWithdrawValidatorCommissionResponse](#) WithdrawValidatorCommission defines a method to withdraw the full commission to the validator address. FundCommunityPool [MsgFundCommunityPool](#) [MsgFundCommunityPoolResponse](#) FundCommunityPool defines a method to allow an account to directly fund the community pool. end services

[Top](#)

<#>

cosmos/evidence/v1beta1/evidence.proto

<#>

Equivocation

Equivocation implements the Evidence interface and defines evidence of double signing misbehavior.

Field Type Label Description height [int64](#) time [google.protobuf.Timestamp](#) power [int64](#) consensus\_address [string](#) end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/evidence/v1beta1/genesis.proto

<#>

GenesisState

GenesisState defines the evidence module's genesis state.

Field Type Label Description evidence [google.protobuf.Any](#) repeated evidence defines all the evidence at genesis. end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

cosmos/evidence/v1beta1/query.proto

<#>

QueryAllEvidenceRequest

QueryEvidenceRequest is the request type for the Query/AllEvidence RPC method.

Field Type Label Description pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

<#>

QueryAllEvidenceResponse

QueryAllEvidenceResponse is the response type for the Query/AllEvidence RPC method.

Field Type Label Description evidence [google.protobuf.Any](#) repeated evidence returns all evidences. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response.

<#>

QueryEvidenceRequest

QueryEvidenceRequest is the request type for the Query/Evidence RPC method.

Field Type Label Description evidence\_hash [bytes](#)

evidence\_hash defines the hash of the requested evidence.

<#>

QueryEvidenceResponse

QueryEvidenceResponse is the response type for the Query/Evidence RPC method.

Field Type Label Description evidence [google.protobuf.Any](#)

evidence returns the requested evidence. end messagesend enumsend HasExtensions

<#>

Query

Query defines the gRPC querier service.

Method Name Request Type Response Type Description HTTP Verb Endpoint Evidence [QueryEvidenceRequest](#) [QueryEvidenceResponse](#)  
Evidence queries evidence based on evidence hash. GET /cosmos/evidence/v1beta1/evidence/{evidence\_hash} AllEvidence  
[QueryAllEvidenceRequest](#) [QueryAllEvidenceResponse](#) AllEvidence queries all evidence. GET /cosmos/evidence/v1beta1/evidence end services

[Top](#)

<#>

cosmos/evidence/v1beta1/tx.proto

<#>

MsgSubmitEvidence

MsgSubmitEvidence represents a message that supports submitting arbitrary Evidence of misbehavior such as equivocation or counterfactual signing.

Field Type Label Description submitter [string](#) evidence [google.protobuf.Any](#)

<#>

MsgSubmitEvidenceResponse

MsgSubmitEvidenceResponse defines the Msg/SubmitEvidence response type.

Field Type Label Description hash [bytes](#)

hash defines the hash of the evidence. end messagesend enumsend HasExtensions

<#>

Msg

Msg defines the evidence Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint SubmitEvidence [MsgSubmitEvidence](#)  
[MsgSubmitEvidenceResponse](#) SubmitEvidence submits an arbitrary Evidence of misbehavior such as equivocation or counterfactual signing. end services

[Top](#)

<#>

cosmos/genutil/v1beta1/genesis.proto

<#>

GenesisState

GenesisState defines the raw genesis transaction in JSON.

Field Type Label Description gen\_txs [bytes](#) repeated gen\_txs defines the genesis transactions. end messagesend enumsend HasExtensionsend services

[Top](#)

#

cosmos/gov/v1beta1/gov.proto

#

Deposit

Deposit defines an amount deposited by an account address to an active proposal.

Field Type Label Description proposal\_id [uint64](#) depositor [string](#) amount [cosmos.base.v1beta1.Coin](#) repeated

#

DepositParams

DepositParams defines the params for deposits on governance proposals.

Field Type Label Description min\_deposit [cosmos.base.v1beta1.Coin](#) repeated Minimum deposit for a proposal to enter voting period. max\_deposit\_period [google.protobuf.Duration](#)

Maximum period for Atom holders to deposit on a proposal. Initial value: 2 months.

#

Proposal

Proposal defines the core field members of a governance proposal.

Field Type Label Description proposal\_id [uint64](#) content [google.protobuf.Any](#) status [ProposalStatus](#) final\_tally\_result [TallyResult](#) submit\_time [google.protobuf.Timestamp](#) deposit\_end\_time [google.protobuf.Timestamp](#) total\_deposit [cosmos.base.v1beta1.Coin](#) repeated voting\_start\_time [google.protobuf.Timestamp](#) voting\_end\_time [google.protobuf.Timestamp](#)

#

TallyParams

TallyParams defines the params for tallying votes on governance proposals.

Field Type Label Description quorum [bytes](#)

Minimum percentage of total stake needed to vote for a result to be considered valid. threshold [bytes](#)

Minimum proportion of Yes votes for proposal to pass. Default value: 0.5. veto\_threshold [bytes](#)

Minimum value of Veto votes to Total votes ratio for proposal to be vetoed. Default value: 1/3.

#

TallyResult

TallyResult defines a standard tally for a governance proposal.

Field Type Label Description yes [string](#) abstain [string](#) no [string](#) no\_with\_veto [string](#)

#

TextProposal

TextProposal defines a standard text proposal whose changes need to be manually updated in case of approval.

Field Type Label Description title [string](#) description [string](#)

#

Vote

Vote defines a vote on a governance proposal. A Vote consists of a proposal ID, the voter, and the vote option.

Field Type Label Description proposal\_id [uint64](#) voter [string](#) option [VoteOption](#)

## #

### VotingParams

VotingParams defines the params for voting on governance proposals.

Field Type Label Description voting\_period [google.protobuf.Duration](#)

Length of the voting period. end messages

## #

### ProposalStatus

ProposalStatus enumerates the valid statuses of a proposal.

Name Number Description PROPOSAL\_STATUS\_UNSPECIFIED 0 PROPOSAL\_STATUS\_UNSPECIFIED defines the default propopsal status. PROPOSAL\_STATUS\_DEPOSIT\_PERIOD 1 PROPOSAL\_STATUS\_DEPOSIT\_PERIOD defines a proposal status during the deposit period. PROPOSAL\_STATUS\_VOTING\_PERIOD 2 PROPOSAL\_STATUS\_VOTING\_PERIOD defines a proposal status during the voting period. PROPOSAL\_STATUS\_PASSED 3 PROPOSAL\_STATUS\_PASSED defines a proposal status of a proposal that has passed. PROPOSAL\_STATUS\_REJECTED 4 PROPOSAL\_STATUS\_REJECTED defines a proposal status of a proposal that has been rejected. PROPOSAL\_STATUS\_FAILED 5 PROPOSAL\_STATUS\_FAILED defines a proposal status of a proposal that has failed.

## #

### VoteOption

VoteOption enumerates the valid vote options for a given governance proposal.

Name Number Description VOTE\_OPTION\_UNSPECIFIED 0 VOTE\_OPTION\_UNSPECIFIED defines a no-op vote option. VOTE\_OPTION\_YES 1 VOTE\_OPTION\_YES defines a yes vote option. VOTE\_OPTION\_ABSTAIN 2 VOTE\_OPTION\_ABSTAIN defines an abstain vote option. VOTE\_OPTION\_NO 3 VOTE\_OPTION\_NO defines a no vote option. VOTE\_OPTION\_NO\_WITH\_VETO 4 VOTE\_OPTION\_NO\_WITH\_VETO defines a no with veto vote option. end enumsend HasExtensionsend services

## [Top](#)

## #

cosmos/gov/v1beta1/genesis.proto

## #

### GenesisState

GenesisState defines the gov module's genesis state.

Field Type Label Description starting\_proposal\_id [uint64](#)

starting\_proposal\_id is the ID of the starting proposal. deposits[Deposit](#) repeated deposits defines all the deposits present at genesis. votes [Vote](#) repeated votes defines all the votes present at genesis. proposals[Proposal](#) repeated proposals defines all the proposals present at genesis. deposit\_params [DepositParams](#)

params defines all the paramaters of related to deposit. voting\_params[VotingParams](#)

params defines all the paramaters of related to voting. tally\_params[TallyParams](#)

params defines all the paramaters of related to tally. end messagesend enumsend HasExtensionsend services

## [Top](#)

## #

cosmos/gov/v1beta1/query.proto

## #

### QueryDepositRequest

QueryDepositRequest is the request type for the Query/Deposit RPC method.

Field Type Label Description proposal\_id [uint64](#)

proposal\_id defines the unique id of the proposal. depositor[string](#)

depositor defines the deposit addresses from the proposals.

## #



## QueryDepositResponse

QueryDepositResponse is the response type for the Query/Deposit RPC method.

Field Type Label Description deposit [Deposit](#)

deposit defines the requested deposit.

#

## QueryDepositsRequest

QueryDepositsRequest is the request type for the Query/Deposits RPC method.

Field Type Label Description proposal\_id [uint64](#)

proposal\_id defines the unique id of the proposal. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

## QueryDepositsResponse

QueryDepositsResponse is the response type for the Query/Deposits RPC method.

Field Type Label Description deposits [Deposit](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response.

#

## QueryParamsRequest

QueryParamsRequest is the request type for the Query/Params RPC method.

Field Type Label Description params\_type [string](#)

params\_type defines which parameters to query for, can be one of "voting", "tallying" or "deposit".

#

## QueryParamsResponse

QueryParamsResponse is the response type for the Query/Params RPC method.

Field Type Label Description voting\_params [VotingParams](#)

voting\_params defines the parameters related to voting. deposit\_params [DepositParams](#)

deposit\_params defines the parameters related to deposit. tally\_params [TallyParams](#)

tally\_params defines the parameters related to tally.

#

## QueryProposalRequest

QueryProposalRequest is the request type for the Query/Proposal RPC method.

Field Type Label Description proposal\_id [uint64](#)

proposal\_id defines the unique id of the proposal.

#

## QueryProposalResponse

QueryProposalResponse is the response type for the Query/Proposal RPC method.

Field Type Label Description proposal [Proposal](#)

#

## QueryProposalsRequest

QueryProposalsRequest is the request type for the Query/Proposals RPC method.

Field Type Label Description proposal\_status [ProposalStatus](#)

proposal\_status defines the status of the proposals. voter [string](#)

voter defines the voter address for the proposals. depositor [string](#)

depositor defines the deposit addresses from the proposals. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

QueryProposalsResponse

QueryProposalsResponse is the response type for the Query/Proposals RPC method.

Field Type Label Description proposals [Proposal](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response.

#

QueryTallyResultRequest

QueryTallyResultRequest is the request type for the Query/Tally RPC method.

Field Type Label Description proposal\_id [uint64](#)

proposal\_id defines the unique id of the proposal.

#

QueryTallyResultResponse

QueryTallyResultResponse is the response type for the Query/Tally RPC method.

Field Type Label Description tally [TallyResult](#)

tally defines the requested tally.

#

QueryVoteRequest

QueryVoteRequest is the request type for the Query/Vote RPC method.

Field Type Label Description proposal\_id [uint64](#)

proposal\_id defines the unique id of the proposal. voter [string](#)

voter defines the voter address for the proposals.

#

QueryVoteResponse

QueryVoteResponse is the response type for the Query/Vote RPC method.

Field Type Label Description vote [Vote](#)

vote defines the queried vote.

#

QueryVotesRequest

QueryVotesRequest is the request type for the Query/Votes RPC method.

Field Type Label Description proposal\_id [uint64](#)

proposal\_id defines the unique id of the proposal. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

QueryVotesResponse

QueryVotesResponse is the response type for the Query/Votes RPC method.

Field Type Label Description votes [Vote](#) repeated votes defined the queried votes. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response. end messagesend enumsend HasExtensions

#

Query

Query defines the gRPC querier service for gov module

Method Name Request Type Response Type Description HTTP Verb Endpoint Proposal [QueryProposalRequest](#) [QueryProposalResponse](#) Proposal queries proposal details based on ProposalID. GET /cosmos/gov/v1beta1/proposals/{proposal\_id} Proposals [QueryProposalsRequest](#) [QueryProposalsResponse](#) Proposals queries all proposals based on given status. GET /cosmos/gov/v1beta1/proposals Vote [QueryVoteRequest](#) [QueryVoteResponse](#) Vote queries voted information based on proposalID, voterAddr. GET /cosmos/gov/v1beta1/proposals/{proposal\_id}/votes/{voter} Votes [QueryVotesRequest](#) [QueryVotesResponse](#) Votes queries votes of a given proposal. GET /cosmos/gov/v1beta1/proposals/{proposal\_id}/votes Params [QueryParamsRequest](#) [QueryParamsResponse](#) Params queries all parameters of the gov module. GET /cosmos/gov/v1beta1/params/{params\_type} Deposit [QueryDepositRequest](#) [QueryDepositResponse](#) Deposit queries single deposit information based proposalID, depositAddr. GET /cosmos/gov/v1beta1/proposals/{proposal\_id}/deposits/{depositor} Deposits [QueryDepositsRequest](#) [QueryDepositsResponse](#) Deposits queries all deposits of a single proposal. GET /cosmos/gov/v1beta1/proposals/{proposal\_id}/deposits TallyResult [QueryTallyResultRequest](#) [QueryTallyResultResponse](#) TallyResult queries the tally of a proposal vote. GET /cosmos/gov/v1beta1/proposals/{proposal\_id}/tally end services

[Top](#)

#

cosmos/gov/v1beta1/tx.proto

#

MsgDeposit

MsgDeposit defines a message to submit a deposit to an existing proposal.

Field Type Label Description proposal\_id [uint64](#) depositor [string](#) amount [cosmos.base.v1beta1.Coin](#) repeated

#

MsgDepositResponse

MsgDepositResponse defines the Msg/Deposit response type.

#

MsgSubmitProposal

MsgSubmitProposal defines an sdk.Msg type that supports submitting arbitrary proposal Content.

Field Type Label Description content [google.protobuf.Any](#) initial\_deposit [cosmos.base.v1beta1.Coin](#) repeated proposer [string](#)

#

MsgSubmitProposalResponse

MsgSubmitProposalResponse defines the Msg/SubmitProposal response type.

Field Type Label Description proposal\_id [uint64](#)

#

MsgVote

MsgVote defines a message to cast a vote.

Field Type Label Description proposal\_id [uint64](#) voter [string](#) option [VoteOption](#)

#

MsgVoteResponse

MsgVoteResponse defines the Msg/Vote response type.

end messagesend enumsend HasExtensions

#

Msg

Msg defines the bank Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint SubmitProposal [MsgSubmitProposal](#)  
[MsgSubmitProposalResponse](#) SubmitProposal defines a method to create new proposal given a content. Vote [MsgVote](#) [MsgVoteResponse](#)  
Vote defines a method to add a vote on a specific proposal. Deposit [MsgDeposit](#) [MsgDepositResponse](#) Deposit defines a method to add  
deposit on a specific proposal. end services

[Top](#)

#

cosmos/params/v1beta1/params.proto

#

ParamChange

ParamChange defines an individual parameter change, for use in ParameterChangeProposal.

Field Type Label Description subspace [string](#) key [string](#) value [string](#)

#

ParameterChangeProposal

ParameterChangeProposal defines a proposal to change one or more parameters.

Field Type Label Description title [string](#) description [string](#) changes [ParamChange](#) repeated end messagesend enumsend  
HasExtensionsend services

[Top](#)

#

cosmos/params/v1beta1/query.proto

#

QueryParamsRequest

QueryParamsRequest is request type for the Query/Params RPC method.

Field Type Label Description subspace [string](#)

subspace defines the module to query the parameter for. key [string](#)

key defines the key of the parameter in the subspace.

#

QueryParamsResponse

QueryParamsResponse is response type for the Query/Params RPC method.

Field Type Label Description param [ParamChange](#)

param defines the queried parameter. end messagesend enumsend HasExtensions

#

Query

Query defines the gRPC querier service.

Method Name Request Type Response Type Description HTTP Verb Endpoint Params [QueryParamsRequest](#) [QueryParamsResponse](#)  
Params queries a specific parameter of a module, given its subspace and key. GET /cosmos/params/v1beta1/params end services

[Top](#)

#

cosmos/slashing/v1beta1/slashing.proto

#

Params

Params represents the parameters used for by the slashing module.

Field Type Label Description signed\_blocks\_window [int64](#) min\_signed\_per\_window [bytes](#) downtime\_jail\_duration [google.protobuf.Duration](#) slash\_fraction\_double\_sign [bytes](#) slash\_fraction\_downtime [bytes](#)

#

ValidatorSigningInfo

ValidatorSigningInfo defines a validator's signing info for monitoring their liveness activity.

Field Type Label Description address [string](#) start\_height [int64](#)

height at which validator was first a candidate OR was unjailed index\_offset [int64](#)

index offset into signed block bit array jailed\_until [google.protobuf.Timestamp](#)

timestamp validator cannot be unjailed until tombstoned [bool](#)

whether or not a validator has been tombstoned (killed out of validator set) missed\_blocks\_counter [int64](#)

missed blocks counter (to avoid scanning the array every time) end messagesend enumsend HasExtensionsend services

[Top](#)

#

cosmos/slashing/v1beta1/genesis.proto

#

GenesisState

GenesisState defines the slashing module's genesis state.

Field Type Label Description params [Params](#)

params defines all the paramaters of related to deposit. signing\_infos [SigningInfo](#) repeated signing\_infos represents a map between validator addresses and their signing infos. missed\_blocks [ValidatorMissedBlocks](#) repeated signing\_infos represents a map between validator addresses and their missed blocks.

#

MissedBlock

MissedBlock contains height and missed status as boolean.

Field Type Label Description index [int64](#)

index is the height at which the block was missed. missed [bool](#)

missed is the missed status.

#

SigningInfo

SigningInfo stores validator signing info of corresponding address.

Field Type Label Description address [string](#)

address is the validator address. validator\_signing\_info [ValidatorSigningInfo](#)

validator\_signing\_info represents the signing info of this validator.

#

ValidatorMissedBlocks

ValidatorMissedBlocks contains array of missed blocks of corresponding address.

Field Type Label Description address [string](#)

address is the validator address. missed\_blocks [MissedBlock](#) repeated missed\_blocks is an array of missed blocks by the validator. end messagesend enumsend HasExtensionsend services

[Top](#)

#

cosmos/slashing/v1beta1/query.proto

#

QueryParamsRequest

QueryParamsRequest is the request type for the Query/Params RPC method

#

QueryParamsResponse

QueryParamsResponse is the response type for the Query/Params RPC method

Field Type Label Description params [Params](#)

#

QuerySigningInfoRequest

QuerySigningInfoRequest is the request type for the Query/SigningInfo RPC method

Field Type Label Description cons\_address [string](#)

cons\_address is the address to query signing info of

#

QuerySigningInfoResponse

QuerySigningInfoResponse is the response type for the Query/SigningInfo RPC method

Field Type Label Description val\_signing\_info [ValidatorSigningInfo](#)

val\_signing\_info is the signing info of requested val cons address

#

QuerySigningInfosRequest

QuerySigningInfosRequest is the request type for the Query/SigningInfos RPC method

Field Type Label Description pagination [cosmos.base.query.v1beta1.PageRequest](#)

#

QuerySigningInfosResponse

QuerySigningInfosResponse is the response type for the Query/SigningInfos RPC method

Field Type Label Description info [ValidatorSigningInfo](#) repeated info is the signing info of all validators pagination [cosmos.base.query.v1beta1.PageResponse](#) end messagesend enumsend HasExtensions

#

Query

Query provides defines the gRPC querier service

Method Name Request Type Response Type Description HTTP Verb Endpoint Params [QueryParamsRequest](#) [QueryParamsResponse](#) Params queries the parameters of slashing module GET /cosmos/slashing/v1beta1/params SigningInfo [QuerySigningInfoRequest](#) [QuerySigningInfoResponse](#) SigningInfo queries the signing info of given cons address GET /cosmos/slashing/v1beta1/signing\_infos/{cons\_address} SigningInfos [QuerySigningInfosRequest](#) [QuerySigningInfosResponse](#) SigningInfos queries signing info of all validators GET /cosmos/slashing/v1beta1/signing\_infos end services

[Top](#)

#

cosmos/slashing/v1beta1/tx.proto

#

MsgUnjail

MsgUnjail defines the Msg/Unjail request type

Field Type Label Description validator\_addr [string](#)

#

## MsgUnjailResponse

MsgUnjailResponse defines the Msg/Unjail response type

end messagesend enumsend HasExtensions

<#>

## Msg

Msg defines the slashing Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint Unjail[MsgUnjail](#) [MsgUnjailResponse](#) Unjail defines a method for unjailing a jailed validator, thus returning them into the bonded validator set, so they can begin receiving provisions and rewards again. end services

[Top](#)

<#>

cosmos/staking/v1beta1/staking.proto

<#>

## Commission

Commission defines commission parameters for a given validator.

Field Type Label Description commission\_rates [CommissionRates](#)

commission\_rates defines the initial commission rates to be used for creating a validator. update\_time[google.protobuf.Timestamp](#)

update\_time is the last time the commission rate was changed.

<#>

## CommissionRates

CommissionRates defines the initial commission rates to be used for creating a validator.

Field Type Label Description rate [string](#)

rate is the commission rate charged to delegators, as a fraction. max\_rate[string](#)

max\_rate defines the maximum commission rate which validator can ever charge, as a fraction. max\_change\_rate[string](#)

max\_change\_rate defines the maximum daily increase of the validator commission, as a fraction.

<#>

## DVPair

DVPair is struct that just has a delegator-validator pair with no other data. It is intended to be used as a marshalable pointer. For example, a DVPair can be used to construct the key to getting an UnbondingDelegation from state.

Field Type Label Description delegator\_address [string](#) validator\_address [string](#)

<#>

## DVPairs

DVPairs defines an array of DVPair objects.

Field Type Label Description pairs [DVPair](#) repeated

<#>

## DVVTriplet

DVVTriplet is struct that just has a delegator-validator-validator triplet with no other data. It is intended to be used as a marshalable pointer. For example, a DVVTriplet can be used to construct the key to getting a Redelegation from state.

Field Type Label Description delegator\_address [string](#) validator\_src\_address [string](#) validator\_dst\_address [string](#)

<#>

## DVVTriplets

DVVTriplets defines an array of DVVTriplet objects.

Field Type Label Description triplets [DVVTriplet](#) repeated

#

Delegation

Delegation represents the bond with tokens held by an account. It is owned by one delegator, and is associated with the voting power of one validator.

Field Type Label Description delegator\_address [string](#)

delegator\_address is the bech32-encoded address of the delegator. validator\_address [string](#)

validator\_address is the bech32-encoded address of the validator. shares [string](#)

shares define the delegation shares received.

#

DelegationResponse

DelegationResponse is equivalent to Delegation except that it contains a balance in addition to shares which is more suitable for client responses.

Field Type Label Description delegation [Delegation](#) balance [cosmos.base.v1beta1.Coin](#)

#

Description

Description defines a validator description.

Field Type Label Description moniker [string](#)

moniker defines a human-readable name for the validator. identity [string](#)

identity defines an optional identity signature (ex. UPort or Keybase). website [string](#)

website defines an optional website link. security\_contact [string](#)

security\_contact defines an optional email for security contact. details [string](#)

details define other optional details.

#

HistoricalInfo

HistoricalInfo contains header and validator information for a given block. It is stored as part of staking module's state, which persists then most recent HistoricalInfo (n is set by the staking module's historical\_entries parameter).

Field Type Label Description header [tendermint.types.Header](#) valset [Validator](#) repeated

#

Params

Params defines the parameters for the staking module.

Field Type Label Description unbonding\_time [google.protobuf.Duration](#)

unbonding\_time is the time duration of unbonding. max\_validators [uint32](#)

max\_validators is the maximum number of validators. max\_entries [uint32](#)

max\_entries is the max entries for either unbonding delegation or redelegation (per pair/trio). historical\_entries [uint32](#)

historical\_entries is the number of historical entries to persist. bond\_denom [string](#)

bond\_denom defines the bondable coin denomination.

#

Pool

Pool is used for tracking bonded and not-bonded token supply of the bond denomination.

Field Type Label Description not\_bonded\_tokens [string](#) bonded\_tokens [string](#)

#



## Redelegation

Redelegation contains the list of a particular delegator's redelegating bonds from a particular source validator to a particular destination validator.

Field Type Label Description delegator\_address [string](#)

delegator\_address is the bech32-encoded address of the delegator. validator\_src\_address [string](#)

validator\_src\_address is the validator redelegation source operator address. validator\_dst\_address [string](#)

validator\_dst\_address is the validator redelegation destination operator address. entries [RedelegationEntry](#) repeated entries are the redelegation entries. redelegation entries |

#

## RedelegationEntry

RedelegationEntry defines a redelegation object with relevant metadata.

Field Type Label Description creation\_height [int64](#)

creation\_height defines the height which the redelegation took place. completion\_time [google.protobuf.Timestamp](#)

completion\_time defines the unix time for redelegation completion. initial\_balance [string](#)

initial\_balance defines the initial balance when redelegation started. shares\_dst [string](#)

shares\_dst is the amount of destination-validator shares created by redelegation.

#

## RedelegationEntryResponse

RedelegationEntryResponse is equivalent to a RedelegationEntry except that it contains a balance in addition to shares which is more suitable for client responses.

Field Type Label Description redelegation\_entry [RedelegationEntry](#) balance [string](#)

#

## RedelegationResponse

RedelegationResponse is equivalent to a Redelegation except that its entries contain a balance in addition to shares which is more suitable for client responses.

Field Type Label Description redelegation [Redelegation](#) entries [RedelegationEntryResponse](#) repeated

#

## UnbondingDelegation

UnbondingDelegation stores all of a single delegator's unbonding bonds for a single validator in an time-ordered list.

Field Type Label Description delegator\_address [string](#)

delegator\_address is the bech32-encoded address of the delegator. validator\_address [string](#)

validator\_address is the bech32-encoded address of the validator. entries [UnbondingDelegationEntry](#) repeated entries are the unbonding delegation entries. unbonding delegation entries |

#

## UnbondingDelegationEntry

UnbondingDelegationEntry defines an unbonding object with relevant metadata.

Field Type Label Description creation\_height [int64](#)

creation\_height is the height which the unbonding took place. completion\_time [google.protobuf.Timestamp](#)

completion\_time is the unix time for unbonding completion. initial\_balance [string](#)

initial\_balance defines the tokens initially scheduled to receive at completion. balance [string](#)

balance defines the tokens to receive at completion.

#

## ValAddresses

ValAddresses defines a repeated set of validator addresses.

Field Type Label Description addresses [string](#) repeated

#

Validator

Validator defines a validator, together with the total amount of the Validator's bond shares and their exchange rate to coins. Slashing results in a decrease in the exchange rate, allowing correct calculation of future undelegations without iterating over delegators. When coins are delegated to this validator, the validator is credited with a delegation whose number of bond shares is based on the amount of coins delegated divided by the current exchange rate. Voting power can be calculated as total bonded shares multiplied by exchange rate.

Field Type Label Description operator\_address [string](#)

operator\_address defines the address of the validator's operator; bech encoded in JSON. consensus\_pubkey [google.protobuf.Any](#)

consensus\_pubkey is the consensus public key of the validator, as a Protobuf Any. jailed [bool](#)

jailed defined whether the validator has been jailed from bonded status or not. status [BondStatus](#)

status is the validator status (bonded/unbonding/unbonded). tokens [string](#)

tokens define the delegated tokens (incl. self-delegation). delegator\_shares [string](#)

delegator\_shares defines total shares issued to a validator's delegators. description [Description](#)

description defines the description terms for the validator. unbonding\_height [int64](#)

unbonding\_height defines, if unbonding, the height at which this validator has begun unbonding. unbonding\_time [google.protobuf.Timestamp](#)

unbonding\_time defines, if unbonding, the min time for the validator to complete unbonding. commission [Commission](#)

commission defines the commission parameters. min\_self\_delegation [string](#)

min\_self\_delegation is the validator's self declared minimum self delegation. end messages

#

BondStatus

BondStatus is the status of a validator.

Name Number Description BOND\_STATUS\_UNSPECIFIED 0 UNSPECIFIED defines an invalid validator status.

BOND\_STATUS\_UNBONDED 1 UNBONDED defines a validator that is not bonded. BOND\_STATUS\_UNBONDING 2 UNBONDING defines a validator that is unbonding. BOND\_STATUS\_BONDED 3 BONDED defines a validator that is bonded. end enumsend HasExtensionsend services

[Top](#)

#

cosmos/staking/v1beta1/genesis.proto

#

GenesisState

GenesisState defines the staking module's genesis state.

Field Type Label Description params [Params](#)

params defines all the paramaters of related to deposit. last\_total\_power [bytes](#)

last\_total\_power tracks the total amounts of bonded tokens recorded during the previous end block. last\_validator\_powers [LastValidatorPower](#) repeated last\_validator\_powers is a special index that provides a historical list of the last-block's bonded validators. validators [Validator](#) repeated delegations defines the validator set at genesis. delegations [Delegation](#) repeated delegations defines the delegations active at genesis. unbonding\_delegations [UnbondingDelegation](#) repeated unbonding\_delegations defines the unbonding delegations active at genesis. redelegations [Redelegation](#) repeated redelegations defines the redelegations active at genesis. exported [bool](#)

#

LastValidatorPower

LastValidatorPower required for validator set update logic.

Field Type Label Description address [string](#)

address is the address of the validator. power [int64](#)

power defines the power of the validator. end messagesend enumsend HasExtensionsend services

[Top](#)

#

cosmos/staking/v1beta1/query.proto

#

QueryDelegationRequest

QueryDelegationRequest is request type for the Query/Delegation RPC method.

Field Type Label Description delegator\_addr [string](#)

delegator\_addr defines the delegator address to query for. validator\_addr [string](#)

validator\_addr defines the validator address to query for.

#

QueryDelegationResponse

QueryDelegationResponse is response type for the Query/Delegation RPC method.

Field Type Label Description delegation\_response [DelegationResponse](#)

delegation\_responses defines the delegation info of a delegation.

#

QueryDelegatorDelegationsRequest

QueryDelegatorDelegationsRequest is request type for the Query/DelegatorDelegations RPC method.

Field Type Label Description delegator\_addr [string](#)

delegator\_addr defines the delegator address to query for. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

QueryDelegatorDelegationsResponse

QueryDelegatorDelegationsResponse is response type for the Query/DelegatorDelegations RPC method.

Field Type Label Description delegation\_responses [DelegationResponse](#) repeated delegation\_responses defines all the delegations' info of a delegator. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response.

#

QueryDelegatorUnbondingDelegationsRequest

QueryDelegatorUnbondingDelegationsRequest is request type for the Query/DelegatorUnbondingDelegations RPC method.

Field Type Label Description delegator\_addr [string](#)

delegator\_addr defines the delegator address to query for. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

QueryDelegatorUnbondingDelegationsResponse

QueryUnbondingDelegatorDelegationsResponse is response type for the Query/UnbondingDelegatorDelegations RPC method.

Field Type Label Description unbonding\_responses [UnbondingDelegation](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response.

#

## QueryDelegatorValidatorRequest

QueryDelegatorValidatorRequest is request type for the Query/DelegatorValidator RPC method.

Field Type Label Description delegator\_addr [string](#)

delegator\_addr defines the delegator address to query for. validator\_addr [string](#)

validator\_addr defines the validator address to query for.

#

## QueryDelegatorValidatorResponse

QueryDelegatorValidatorResponse response type for the Query/DelegatorValidator RPC method.

Field Type Label Description validator [Validator](#)

validator defines the the validator info.

#

## QueryDelegatorValidatorsRequest

QueryDelegatorValidatorsRequest is request type for the Query/DelegatorValidators RPC method.

Field Type Label Description delegator\_addr [string](#)

delegator\_addr defines the delegator address to query for. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

## QueryDelegatorValidatorsResponse

QueryDelegatorValidatorsResponse is response type for the Query/DelegatorValidators RPC method.

Field Type Label Description validators [Validator](#) repeated validators defines the the validators' info of a delegator. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response.

#

## QueryHistoricalInfoRequest

QueryHistoricalInfoRequest is request type for the Query/HistoricalInfo RPC method.

Field Type Label Description height [int64](#)

height defines at which height to query the historical info.

#

## QueryHistoricalInfoResponse

QueryHistoricalInfoResponse is response type for the Query/HistoricalInfo RPC method.

Field Type Label Description hist [HistoricalInfo](#)

hist defines the historical info at the given height.

#

## QueryParamsRequest

QueryParamsRequest is request type for the Query/Params RPC method.

#

## QueryParamsResponse

QueryParamsResponse is response type for the Query/Params RPC method.

Field Type Label Description params [Params](#)

params holds all the parameters of this module.

#

## QueryPoolRequest

QueryPoolRequest is request type for the Query/Pool RPC method.

#

## QueryPoolResponse

QueryPoolResponse is response type for the Query/Pool RPC method.

Field Type Label Description pool [Pool](#)

pool defines the pool info.

#

## QueryRedelegationsRequest

QueryRedelegationsRequest is request type for the Query/Redelegations RPC method.

Field Type Label Description delegator\_addr [string](#)

delegator\_addr defines the delegator address to query for. src\_validator\_addr [string](#)

src\_validator\_addr defines the validator address to redelegate from. dst\_validator\_addr [string](#)

dst\_validator\_addr defines the validator address to redelegate to. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

## QueryRedelegationsResponse

QueryRedelegationsResponse is response type for the Query/Redelegations RPC method.

Field Type Label Description redelegation\_responses [RedelegationResponse](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response.

#

## QueryUnbondingDelegationRequest

QueryUnbondingDelegationRequest is request type for the Query/UnbondingDelegation RPC method.

Field Type Label Description delegator\_addr [string](#)

delegator\_addr defines the delegator address to query for. validator\_addr [string](#)

validator\_addr defines the validator address to query for.

#

## QueryUnbondingDelegationResponse

QueryDelegationResponse is response type for the Query/UnbondingDelegation RPC method.

Field Type Label Description unbond [UnbondingDelegation](#)

unbond defines the unbonding information of a delegation.

#

## QueryValidatorDelegationsRequest

QueryValidatorDelegationsRequest is request type for the Query/ValidatorDelegations RPC method

Field Type Label Description validator\_addr [string](#)

validator\_addr defines the validator address to query for. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

## QueryValidatorDelegationsResponse

QueryValidatorDelegationsResponse is response type for the Query/ValidatorDelegations RPC method

Field Type Label Description delegation\_responses [DelegationResponse](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)  
pagination defines the pagination in the response.

#

QueryValidatorRequest

QueryValidatorRequest is response type for the Query/Validator RPC method

Field Type Label Description validator\_addr [string](#)

validator\_addr defines the validator address to query for.

#

QueryValidatorResponse

QueryValidatorResponse is response type for the Query/Validator RPC method

Field Type Label Description validator [Validator](#)

validator defines the the validator info.

#

QueryValidatorUnbondingDelegationsRequest

QueryValidatorUnbondingDelegationsRequest is required type for the Query/ValidatorUnbondingDelegations RPC method

Field Type Label Description validator\_addr [string](#)

validator\_addr defines the validator address to query for. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

QueryValidatorUnbondingDelegationsResponse

QueryValidatorUnbondingDelegationsResponse is response type for the Query/ValidatorUnbondingDelegations RPC method.

Field Type Label Description unbonding\_responses [UnbondingDelegation](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response.

#

QueryValidatorsRequest

QueryValidatorsRequest is request type for Query/Validators RPC method.

Field Type Label Description status [string](#)

status enables to query for validators matching a given status. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

QueryValidatorsResponse

QueryValidatorsResponse is response type for the Query/Validators RPC method

Field Type Label Description validators [Validator](#) repeated validators contains all the queried validators. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response. end messagesend enumsend HasExtensions

#

Query

Query defines the gRPC querier service.

Method Name Request Type Response Type Description HTTP Verb Endpoint Validators [QueryValidatorsRequest](#)  
[QueryValidatorsResponse](#) Validators queries all validators that match the given status. GET /cosmos/staking/v1beta1/validators Validator

[QueryValidatorRequest](#) [QueryValidatorResponse](#) Validator queries validator info for given validator address. GET /cosmos/staking/v1beta1/validators/{validator\_addr} ValidatorDelegations [QueryValidatorDelegationsRequest](#) [QueryValidatorDelegationsResponse](#) ValidatorDelegations queries delegate info for given validator. GET /cosmos/staking/v1beta1/validators/{validator\_addr}/delegations ValidatorUnbondingDelegations [QueryValidatorUnbondingDelegationsRequest](#) [QueryValidatorUnbondingDelegationsResponse](#) ValidatorUnbondingDelegations queries unbonding delegations of a validator. GET /cosmos/staking/v1beta1/validators/{validator\_addr}/unbonding\_delegations Delegation [QueryDelegationRequest](#) [QueryDelegationResponse](#) Delegation queries delegate info for given validator delegator pair. GET /cosmos/staking/v1beta1/validators/{validator\_addr}/delegations/{delegator\_addr} UnbondingDelegation [QueryUnbondingDelegationRequest](#) [QueryUnbondingDelegationResponse](#) UnbondingDelegation queries unbonding info for given validator delegator pair. GET /cosmos/staking/v1beta1/validators/{validator\_addr}/delegations/{delegator\_addr}/unbonding\_delegation DelegatorDelegations [QueryDelegatorDelegationsRequest](#) [QueryDelegatorDelegationsResponse](#) DelegatorDelegations queries all delegations of a given delegator address. GET /cosmos/staking/v1beta1/delegations/{delegator\_addr} DelegatorUnbondingDelegations [QueryDelegatorUnbondingDelegationsRequest](#) [QueryDelegatorUnbondingDelegationsResponse](#) DelegatorUnbondingDelegations queries all unbonding delegations of a given delegator address. GET /cosmos/staking/v1beta1/delegations/{delegator\_addr}/unbonding\_delegations Redelegations [QueryRedelegationsRequest](#) [QueryRedelegationsResponse](#) Redelegations queries redelegations of given address. GET /cosmos/staking/v1beta1/delegations/{delegator\_addr}/redelegations DelegatorValidators [QueryDelegatorValidatorsRequest](#) [QueryDelegatorValidatorsResponse](#) DelegatorValidators queries all validators info for given delegator address. GET /cosmos/staking/v1beta1/delegations/{delegator\_addr}/validators DelegatorValidator [QueryDelegatorValidatorRequest](#) [QueryDelegatorValidatorResponse](#) DelegatorValidator queries validator info for given delegator validator pair. GET /cosmos/staking/v1beta1/delegations/{delegator\_addr}/validators/{validator\_addr} HistoricalInfo [QueryHistoricalInfoRequest](#) [QueryHistoricalInfoResponse](#) HistoricalInfo queries the historical info for given height. GET /cosmos/staking/v1beta1/historical\_info/{height} Pool [QueryPoolRequest](#) [QueryPoolResponse](#) Pool queries the pool info. GET /cosmos/staking/v1beta1/pool Params [QueryParamsRequest](#) [QueryParamsResponse](#) Parameters queries the staking parameters. GET /cosmos/staking/v1beta1/params end services

[Top](#)

## #

cosmos/staking/v1beta1/tx.proto

## #

MsgBeginRedelegate

MsgBeginRedelegate defines a SDK message for performing a redelegation of coins from a delegator and source validator to a destination validator.

Field	Type	Label	Description
delegator_address	<a href="#">string</a>		
validator_src_address	<a href="#">string</a>		
validator_dst_address	<a href="#">string</a>		
amount	<a href="#">cosmos.base.v1beta1.Coin</a>		

## #

MsgBeginRedelegateResponse

MsgBeginRedelegateResponse defines the Msg/BeginRedelegate response type.

Field	Type	Label	Description
completion_time	<a href="#">google.protobuf.Timestamp</a>		

## #

MsgCreateValidator

MsgCreateValidator defines a SDK message for creating a new validator.

Field	Type	Label	Description
description	<a href="#">Description</a>		
commission	<a href="#">CommissionRates</a>		
min_self_delegation	<a href="#">string</a>		
delegator_address	<a href="#">string</a>		
validator_address	<a href="#">string</a>		
pubkey	<a href="#">google.protobuf.Any</a>		
value	<a href="#">cosmos.base.v1beta1.Coin</a>		

## #

MsgCreateValidatorResponse

MsgCreateValidatorResponse defines the Msg/CreateValidator response type.

## #

MsgDelegate

MsgDelegate defines a SDK message for performing a delegation of coins from a delegator to a validator.

Field	Type	Label	Description
delegator_address	<a href="#">string</a>		
validator_address	<a href="#">string</a>		
amount	<a href="#">cosmos.base.v1beta1.Coin</a>		

## #

MsgDelegateResponse

MsgDelegateResponse defines the Msg/Delegate response type.

## #

### MsgEditValidator

MsgEditValidator defines a SDK message for editing an existing validator.

Field Type Label Description description [Description](#) validator\_address [string](#) commission\_rate [string](#)

We pass a reference to the new commission rate and min self delegation as it's not mandatory to update. If not updated, the deserialized rate will be zero with no way to distinguish if an update was intended. REF: #2373 min\_self\_delegation [string](#)

## #

### MsgEditValidatorResponse

MsgEditValidatorResponse defines the Msg/EditValidator response type.

## #

### MsgUndelegate

MsgUndelegate defines a SDK message for performing an undelegation from a delegate and a validator.

Field Type Label Description delegator\_address [string](#) validator\_address [string](#) amount [cosmos.base.v1beta1.Coin](#)

## #

### MsgUndelegateResponse

MsgUndelegateResponse defines the Msg/Undelegate response type.

Field Type Label Description completion\_time [google.protobuf.Timestamp](#) end messagesend enumsend HasExtensions

## #

### Msg

Msg defines the staking Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint CreateValidator [MsgCreateValidator](#) [MsgCreateValidatorResponse](#) CreateValidator defines a method for creating a new validator. EditValidator [MsgEditValidator](#) [MsgEditValidatorResponse](#) EditValidator defines a method for editing an existing validator. Delegate [MsgDelegate](#) [MsgDelegateResponse](#) Delegate defines a method for performing a delegation of coins from a delegator to a validator. BeginRedelegate [MsgBeginRedelegate](#) [MsgBeginRedelegateResponse](#) BeginRedelegate defines a method for performing a redelegation of coins from a delegator and source validator to a destination validator. Undelegate [MsgUndelegate](#) [MsgUndelegateResponse](#) Undelegate defines a method for performing an undelegation from a delegate and a validator. end services

## Top

## #

cosmos/tx/signing/v1beta1/signing.proto

## #

### SignatureDescriptor

SignatureDescriptor is a convenience type which represents the full data for a signature including the public key of the signer, signing modes and the signature itself. It is primarily used for coordinating signatures between clients.

Field Type Label Description public\_key [google.protobuf.Any](#)

public\_key is the public key of the signer data [SignatureDescriptor.Data](#) sequence [uint64](#)

sequence is the sequence of the account, which describes the number of committed transactions signed by a given address. It is used to prevent replay attacks.

## #

### SignatureDescriptor.Data

Data represents signature data

Field Type Label Description single [SignatureDescriptor.Data.Single](#)

single represents a single signer multi [SignatureDescriptor.Data.Multi](#)

multi represents a multisig signer



## #

SignatureDescriptor.Data.Multi

Multi is the signature data for a multisig public key

Field Type Label Description bitarray [cosmos.crypto.multisig.v1beta1.CompactBitArray](#)

bitarray specifies which keys within the multisig are signing signatures [SignatureDescriptor.Data](#) repeated signatures is the signatures of the multi-signature

## #

SignatureDescriptor.Data.Single

Single is the signature data for a single signer

Field Type Label Description mode [SignMode](#)

mode is the signing mode of the single signer signature [bytes](#)

signature is the raw signature bytes

## #

SignatureDescriptors

SignatureDescriptors wraps multiple SignatureDescriptor's.

Field Type Label Description signatures [SignatureDescriptor](#) repeated signatures are the signature descriptors end messages

## #

SignMode

SignMode represents a signing mode with its own security guarantees.

Name Number Description SIGN\_MODE\_UNSPECIFIED 0 SIGN\_MODE\_UNSPECIFIED specifies an unknown signing mode and will be rejected SIGN\_MODE\_DIRECT 1 SIGN\_MODE\_DIRECT specifies a signing mode which uses SignDoc and is verified with raw bytes from Tx SIGN\_MODE\_TEXTUAL 2 SIGN\_MODE\_TEXTUAL is a future signing mode that will verify some human-readable textual representation on top of the binary representation from SIGN\_MODE\_DIRECT SIGN\_MODE\_LEGACY\_AMINO\_JSON 127 SIGN\_MODE\_LEGACY\_AMINO\_JSON is a backwards compatibility mode which uses Amino JSON and will be removed in the future end enum send HasExtensions send services

[Top](#)

## #

cosmos/tx/v1beta1/tx.proto

## #

AuthInfo

AuthInfo describes the fee and signer modes that are used to sign a transaction.

Field Type Label Description signer\_infos [SignerInfo](#) repeated signer\_infos defines the signing modes for the required signers. The number and order of elements must match the required signers from TxBody's messages. The first element is the primary signer and the one which pays the fee. fee [Fee](#)

Fee is the fee and gas limit for the transaction. The first signer is the primary signer and the one which pays the fee. The fee can be calculated based on the cost of evaluating the body and doing signature verification of the signers. This can be estimated via simulation.

## #

Fee

Fee includes the amount of coins paid in fees and the maximum gas to be used by the transaction. The ratio yields an effective "gasprice", which must be above some minimum to be accepted into the mempool.

Field Type Label Description amount [cosmos.base.v1beta1.Coin](#) repeated amount is the amount of coins to be paid as a fee gas\_limit [uint64](#)

gas\_limit is the maximum gas that can be used in transaction processing before an out of gas error occurs payer [string](#)

if unset, the first signer is responsible for paying the fees. If set, the specified account must pay the fees. the payer must be a tx signer (and thus have signed this field in AuthInfo). setting this field does not change the ordering of required signers for the transaction. granter [string](#)

if set, the fee payer (either the first signer or the value of the payer field) requests that a fee grant be used to pay fees instead of the fee

payer's own balance. If an appropriate fee grant does not exist or the chain does not support fee grants, this will fail

## #

### ModelInfo

ModelInfo describes the signing mode of a single or nested multisig signer.

Field Type Label Description single [ModelInfo.Single](#)

single represents a single signer multi [ModelInfo.Multi](#)

multi represents a nested multisig signer

## #

### ModelInfo.Multi

Multi is the mode info for a multisig public key

Field Type Label Description bitarray [cosmos.crypto.multisig.v1beta1.CompactBitArray](#)

bitarray specifies which keys within the multisig are signing mode\_infos [ModelInfo](#) repeated mode\_infos is the corresponding modes of the signers of the multisig which could include nested multisig public keys

## #

### ModelInfo.Single

Single is the mode info for a single signer. It is structured as a message to allow for additional fields such as locale for SIGN\_MODE\_TEXTUAL in the future

Field Type Label Description mode [cosmos.tx.signing.v1beta1.SignMode](#)

mode is the signing mode of the single signer

## #

### SignDoc

SignDoc is the type used for generating sign bytes for SIGN\_MODE\_DIRECT.

Field Type Label Description body\_bytes [bytes](#)

body\_bytes is protobuf serialization of a TxBody that matches the representation in TxRaw. auth\_info\_bytes [bytes](#)

auth\_info\_bytes is a protobuf serialization of an AuthInfo that matches the representation in TxRaw. chain\_id [string](#)

chain\_id is the unique identifier of the chain this transaction targets. It prevents signed transactions from being used on another chain by an attacker account\_number [uint64](#)

account\_number is the account number of the account in state

## #

### SignerInfo

SignerInfo describes the public key and signing mode of a single top-level signer.

Field Type Label Description public\_key [google.protobuf.Any](#)

public\_key is the public key of the signer. It is optional for accounts that already exist in state. If unset, the verifier can use the required \ signer address for this position and lookup the public key. mode\_info [ModelInfo](#)

mode\_info describes the signing mode of the signer and is a nested structure to support nested multisig pubkey's sequence [uint64](#)

sequence is the sequence of the account, which describes the number of committed transactions signed by a given address. It is used to prevent replay attacks.

## #

### Tx

Tx is the standard type used for broadcasting transactions.

Field Type Label Description body [TxBody](#)

body is the processable content of the transaction auth\_info [AuthInfo](#)

auth\_info is the authorization related content of the transaction, specifically signers, signer modes and fee signatures [bytes](#) repeated

signatures is a list of signatures that matches the length and order of AuthInfo's signer\_infos to allow connecting signature meta information like public key and signing mode by position.

## #

### TxBody

TxBody is the body of a transaction that all signers sign over.

Field Type Label Description messages [google.protobuf.Any](#) repeated messages is a list of messages to be executed. The required signers of those messages define the number and order of elements in AuthInfo's signer\_infos and Tx's signatures. Each required signer address is added to the list only the first time it occurs. By convention, the first required signer (usually from the first message) is referred to as the primary signer and pays the fee for the whole transaction. memo [string](#)

memo is any arbitrary memo to be added to the transaction timeout\_height [uint64](#)

timeout is the block height after which this transaction will not be processed by the chain extension\_options [google.protobuf.Any](#) repeated extension\_options are arbitrary options that can be added by chains when the default options are not sufficient. If any of these are present and can't be handled, the transaction will be rejected non\_critical\_extension\_options [google.protobuf.Any](#) repeated extension\_options are arbitrary options that can be added by chains when the default options are not sufficient. If any of these are present and can't be handled, they will be ignored

## #

### TxRaw

TxRaw is a variant of Tx that pins the signer's exact binary representation of body and auth\_info. This is used for signing, broadcasting and verification. The binaryserialize(tx: TxRaw) is stored in Tendermint and the hashsha256(serialize(tx: TxRaw)) becomes the "txhash", commonly used as the transaction ID.

Field Type Label Description body\_bytes [bytes](#)

body\_bytes is a protobuf serialization of a TxBody that matches the representation in SignDoc. auth\_info\_bytes [bytes](#)

auth\_info\_bytes is a protobuf serialization of an AuthInfo that matches the representation in SignDoc. signatures [bytes](#) repeated signatures is a list of signatures that matches the length and order of AuthInfo's signer\_infos to allow connecting signature meta information like public key and signing mode by position. end messagesend enumsend HasExtensionsend services

[Top](#)

## #

cosmos/tx/v1beta1/service.proto

## #

### BroadcastTxRequest

BroadcastTxRequest is the request type for the Service.BroadcastTxRequest RPC method.

Field Type Label Description tx\_bytes [bytes](#)

tx\_bytes is the raw transaction. mode [BroadcastMode](#)

## #

### BroadcastTxResponse

BroadcastTxResponse is the response type for the Service.BroadcastTx method.

Field Type Label Description tx\_response [cosmos.base.abci.v1beta1.TxResponse](#)

tx\_response is the queried TxResponses.

## #

### GetTxRequest

GetTxRequest is the request type for the Service.GetTx RPC method.

Field Type Label Description hash [string](#)

hash is the tx hash to query, encoded as a hex string.

## #

### GetTxResponse

GetTxResponse is the response type for the Service.GetTx method.

Field Type Label Description tx [Tx](#)

tx is the queried transaction. tx\_response [cosmos.base.abci.v1beta1.TxResponse](#)

tx\_response is the queried TxResponses.

#

GetTxsEventRequest

GetTxsEventRequest is the request type for the Service.TxsByEvents RPC method.

Field Type Label Description events [string](#) repeated events is the list of transaction event type. pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an pagination for the request. order\_by [OrderBy](#)

#

GetTxsEventResponse

GetTxsEventResponse is the response type for the Service.TxsByEvents RPC method.

Field Type Label Description txs [Tx](#) repeated txs is the list of queried transactions. tx\_responses [cosmos.base.abci.v1beta1.TxResponse](#) repeated tx\_responses is the list of queried TxResponses. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines an pagination for the response.

#

SimulateRequest

SimulateRequest is the request type for the Service.Simulate RPC method.

Field Type Label Description tx [Tx](#)

tx is the transaction to simulate.

#

SimulateResponse

SimulateResponse is the response type for the Service.SimulateRPC method.

Field Type Label Description gas\_info [cosmos.base.abci.v1beta1.GasInfo](#)

gas\_info is the information about gas used in the simulation. result [cosmos.base.abci.v1beta1.Result](#)

result is the result of the simulation. end messages

#

BroadcastMode

BroadcastMode specifies the broadcast mode for the TxService.Broadcast RPC method.

Name Number Description BROADCAST\_MODE\_UNSPECIFIED 0 zero-value for mode ordering BROADCAST\_MODE\_BLOCK 1 BROADCAST\_MODE\_BLOCK defines a tx broadcasting mode where the client waits for the tx to be committed in a block. BROADCAST\_MODE\_SYNC 2 BROADCAST\_MODE\_SYNC defines a tx broadcasting mode where the client waits for a CheckTx execution response only. BROADCAST\_MODE\_ASYNC 3 BROADCAST\_MODE\_ASYNC defines a tx broadcasting mode where the client returns immediately.

#

OrderBy

OrderBy defines the sorting order

Name Number Description ORDER\_BY\_UNSPECIFIED 0 ORDER\_BY\_UNSPECIFIED specifies an unknown sorting order. OrderBy defaults to ASC in this case. ORDER\_BY\_ASC 1 ORDER\_BY\_ASC defines ascending order ORDER\_BY\_DESC 2 ORDER\_BY\_DESC defines descending order end enumsend HasExtensions

#

Service

Service defines a gRPC service for interacting with transactions.

Method Name Request Type Response Type Description HTTP Verb Endpoint Simulate [SimulateRequest](#) [SimulateResponse](#) Simulate simulates executing a transaction for estimating gas usage. POST /cosmos/tx/v1beta1/simulate GetTx [GetTxRequest](#) [GetTxResponse](#) GetTx fetches a tx by hash. GET /cosmos/tx/v1beta1/txs/{hash} BroadcastTx [BroadcastTxRequest](#) [BroadcastTxResponse](#) BroadcastTx broadcast transaction. POST /cosmos/tx/v1beta1/txs GetTxEvent [GetTxEventRequest](#) [GetTxEventResponse](#) GetTxEvent fetches txs by event. GET /cosmos/tx/v1beta1/txs end services

[Top](#)

#

cosmos/upgrade/v1beta1/upgrade.proto

#

CancelSoftwareUpgradeProposal

CancelSoftwareUpgradeProposal is a gov Content type for cancelling a software upgrade.

Field Type Label Description title [string](#) description [string](#)

#

Plan

Plan specifies information about a planned upgrade and when it should occur.

Field Type Label Description name [string](#)

Sets the name for the upgrade. This name will be used by the upgraded version of the software to apply any special "on-upgrade" commands during the first BeginBlock method after the upgrade is applied. It is also used to detect whether a software version can handle a given upgrade. If no upgrade handler with this name has been set in the software, it will be assumed that the software is out-of-date when the upgrade Time or Height is reached and the software will exit. time [google.protobuf.Timestamp](#)

The time after which the upgrade must be performed. Leave set to its zero value to use a pre-defined Height instead. height [int64](#)

The height at which the upgrade must be performed. Only used if Time is not set. info [string](#)

Any application specific upgrade info to be included on-chain such as a git commit that validators could automatically upgrade to upgraded\_client\_state [google.protobuf.Any](#)

IBC-enabled chains can opt-in to including the upgraded client state in its upgrade plan This will make the chain commit to the correct upgraded (self) client state before the upgrade occurs, so that connecting chains can verify that the new upgraded client is valid by verifying a proof on the previous version of the chain. This will allow IBC connections to persist smoothly across planned chain upgrades

#

SoftwareUpgradeProposal

SoftwareUpgradeProposal is a gov Content type for initiating a software upgrade.

Field Type Label Description title [string](#) description [string](#) plan [Plan](#) end messagesend enumsend HasExtensionsend services

[Top](#)

#

cosmos/upgrade/v1beta1/query.proto

#

QueryAppliedPlanRequest

QueryCurrentPlanRequest is the request type for the Query/AppliedPlan RPC method.

Field Type Label Description name [string](#)

name is the name of the applied plan to query for.

#

QueryAppliedPlanResponse

QueryAppliedPlanResponse is the response type for the Query/AppliedPlan RPC method.

Field Type Label Description height [int64](#)

height is the block height at which the plan was applied.

## #

QueryCurrentPlanRequest

QueryCurrentPlanRequest is the request type for the Query/CurrentPlan RPC method.

## #

QueryCurrentPlanResponse

QueryCurrentPlanResponse is the response type for the Query/CurrentPlan RPC method.

Field Type Label Description plan [Plan](#)

plan is the current upgrade plan.

## #

QueryUpgradedConsensusStateRequest

QueryUpgradedConsensusStateRequest is the request type for the Query/UpgradedConsensusState RPC method.

Field Type Label Description last\_height [int64](#)

last height of the current chain must be sent in request as this is the height under which next consensus state is stored

## #

QueryUpgradedConsensusStateResponse

QueryUpgradedConsensusStateResponse is the response type for the Query/UpgradedConsensusState RPC method.

Field Type Label Description upgraded\_consensus\_state [google.protobuf.Any](#) end messagesend enumsend HasExtensions

## #

Query

Query defines the gRPC upgrade querier service.

Method Name Request Type Response Type Description HTTP Verb Endpoint CurrentPlan [QueryCurrentPlanRequest](#) [QueryCurrentPlanResponse](#) CurrentPlan queries the current upgrade plan. GET /cosmos/upgrade/v1beta1/current\_plan AppliedPlan [QueryAppliedPlanRequest](#) [QueryAppliedPlanResponse](#) AppliedPlan queries a previously applied upgrade plan by its name. GET /cosmos/upgrade/v1beta1/applied\_plan/{name} UpgradedConsensusState [QueryUpgradedConsensusStateRequest](#) [QueryUpgradedConsensusStateResponse](#) UpgradedConsensusState queries the consensus state that will serve as a trusted kernel for the next version of this chain. It will only be stored at the last height of this chain. UpgradedConsensusState RPC not supported with legacy querier GET /cosmos/upgrade/v1beta1/upgraded\_consensus\_state/{last\_height} end services

[Top](#)

## #

cosmos/vesting/v1beta1/tx.proto

## #

MsgCreateVestingAccount

MsgCreateVestingAccount defines a message that enables creating a vesting account.

Field Type Label Description from\_address [string](#) to\_address [string](#) amount [cosmos.base.v1beta1.Coin](#) repeated end\_time [int64](#) delayed [bool](#)

## #

MsgCreateVestingAccountResponse

MsgCreateVestingAccountResponse defines the Msg/CreateVestingAccount response type.

end messagesend enumsend HasExtensions

## #

Msg

Msg defines the bank Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint CreateVestingAccount [MsgCreateVestingAccount](#)

[MsgCreateVestingAccountResponse](#) CreateVestingAccount defines a method that enables creating a vesting account. end services

[Top](#)

#

cosmos/vesting/v1beta1/vesting.proto

#

BaseVestingAccount

BaseVestingAccount implements the VestingAccount interface. It contains all the necessary fields needed for any vesting account implementation.

Field Type Label Description base\_account [cosmos.auth.v1beta1.BaseAccount](#) original\_vesting [cosmos.base.v1beta1.Coin](#) repeated delegated\_free [cosmos.base.v1beta1.Coin](#) repeated delegated\_vesting [cosmos.base.v1beta1.Coin](#) repeated end\_time [int64](#)

#

ContinuousVestingAccount

ContinuousVestingAccount implements the VestingAccount interface. It continuously vests by unlocking coins linearly with respect to time.

Field Type Label Description base\_vesting\_account [BaseVestingAccount](#) start\_time [int64](#)

#

DelayedVestingAccount

DelayedVestingAccount implements the VestingAccount interface. It vests all coins after a specific time, but non prior. In other words, it keeps them locked until a specified time.

Field Type Label Description base\_vesting\_account [BaseVestingAccount](#)

#

Period

Period defines a length of time and amount of coins that will vest.

Field Type Label Description length [int64](#) amount [cosmos.base.v1beta1.Coin](#) repeated

#

PeriodicVestingAccount

PeriodicVestingAccount implements the VestingAccount interface. It periodically vests by unlocking coins during each specified period.

Field Type Label Description base\_vesting\_account [BaseVestingAccount](#) start\_time [int64](#) vesting\_periods [Period](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

#

farm/farm.proto

#

FarmInfo

Field Type Label Description pool\_name [string](#) address [string](#) locked [string](#) reward\_debt [cosmos.base.v1beta1.Coin](#) repeated

#

FarmPool

Field Type Label Description name [string](#) creator [string](#) description [string](#) start\_height [int64](#) end\_height [int64](#) last\_height\_distr\_rewards [int64](#) editable [bool](#) total\_lpt\_locked [cosmos.base.v1beta1.Coin](#) rules [RewardRule](#) repeated

#

Params

Field Type Label Description create\_pool\_fee [cosmos.base.v1beta1.Coin](#) max\_reward\_categories [uint32](#)

<#>

RewardRule

Field Type Label Description reward [string](#) total\_reward [string](#) remaining\_reward [string](#) reward\_per\_block [string](#) reward\_per\_share [string](#)  
end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

farm/genesis.proto

<#>

GenesisState

Field Type Label Description params [Params](#) pools [FarmPool](#) repeated farm\_infos [FarmInfo](#) repeated end messagesend enumsend  
HasExtensionsend services

[Top](#)

<#>

farm/query.proto

<#>

FarmPoolEntry

Field Type Label Description name [string](#) creator [string](#) description [string](#) start\_height [int64](#) end\_height [int64](#) editable [bool](#) expired [bool](#)  
total\_lpt\_locked [cosmos.base.v1beta1.Coin](#) total\_reward [cosmos.base.v1beta1.Coin](#) repeated remaining\_reward  
[cosmos.base.v1beta1.Coin](#) repeated reward\_per\_block [cosmos.base.v1beta1.Coin](#) repeated

<#>

LockedInfo

Field Type Label Description pool\_name [string](#) locked [cosmos.base.v1beta1.Coin](#) pending\_reward [cosmos.base.v1beta1.Coin](#) repeated

<#>

QueryFarmPoolRequest

Field Type Label Description name [string](#)

<#>

QueryFarmPoolResponse

Field Type Label Description pool [FarmPoolEntry](#)

<#>

QueryFarmPoolsRequest

Field Type Label Description pagination [cosmos.base.query.v1beta1.PageRequest](#)

<#>

QueryFarmPoolsResponse

Field Type Label Description pools [FarmPoolEntry](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

<#>

QueryFarmerRequest

Field Type Label Description farmer [string](#) pool\_name [string](#)

<#>

QueryFarmerResponse

Field Type Label Description list [LockedInfo](#) repeated height [int64](#)



<#>

QueryParamsRequest

<#>

QueryParamsResponse

Field Type Label Description params [Params](#) end messagesend enumsend HasExtensions

<#>

Query

Method Name Request Type Response Type Description HTTP Verb Endpoint FarmPools [QueryFarmPoolsRequest](#)  
[QueryFarmPoolsResponse](#)

GET /irismod/farm/pools FarmPool [QueryFarmPoolRequest](#) [QueryFarmPoolResponse](#)

GET /irismod/farm/pool/{name} Farmer [QueryFarmerRequest](#) [QueryFarmerResponse](#)

GET /irismod/farm/farmers/{farmer} Params [QueryParamsRequest](#) [QueryParamsResponse](#) Params queries the htlc parameters GET  
/irismod/farm/params end services

[Top](#)

<#>

farm/tx.proto

<#>

MsgAdjustPool

Field Type Label Description pool\_name [string](#) additional\_reward [cosmos.base.v1beta1.Coin](#) repeated reward\_per\_block  
[cosmos.base.v1beta1.Coin](#) repeated creator [string](#)

<#>

MsgAdjustPoolResponse

<#>

MsgCreatePool

Field Type Label Description name [string](#) description [string](#) lpt\_denom [string](#) start\_height [int64](#) reward\_per\_block  
[cosmos.base.v1beta1.Coin](#) repeated total\_reward [cosmos.base.v1beta1.Coin](#) repeated editable [bool](#) creator [string](#)

<#>

MsgCreatePoolResponse

<#>

MsgDestroyPool

Field Type Label Description pool\_name [string](#) creator [string](#)

<#>

MsgDestroyPoolResponse

<#>

MsgHarvest

Field Type Label Description pool\_name [string](#) sender [string](#)

<#>

MsgHarvestResponse

Field Type Label Description reward [cosmos.base.v1beta1.Coin](#) repeated

<#>

MsgStake

Field Type Label Description pool\_name [string](#) amount [cosmos.base.v1beta1.Coin](#) sender [string](#)

<#>

MsgStakeResponse

Field Type Label Description reward [cosmos.base.v1beta1.Coin](#) repeated

<#>

MsgUnstake

Field Type Label Description pool\_name [string](#) amount [cosmos.base.v1beta1.Coin](#) sender [string](#)

<#>

MsgUnstakeResponse

Field Type Label Description reward [cosmos.base.v1beta1.Coin](#) repeated end messagesend enumsend HasExtensions

<#>

Msg

Msg defines the farm Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint CreatePool [MsgCreatePool](#) [MsgCreatePoolResponse](#) CreatePool defines a method for creating a new farm pool DestroyPool [MsgDestroyPool](#) [MsgDestroyPoolResponse](#) DestroyPool defines a method for destroying a existed farm pool AdjustPool [MsgAdjustPool](#) [MsgAdjustPoolResponse](#) AdjustPool defines a method for adjusting the farm pool params Stake [MsgStake](#) [MsgStakeResponse](#) Stake defines a method for staking some lp token to a farm pool Unstake [MsgUnstake](#) [MsgUnstakeResponse](#) Unstake defines a method for unstaking some lp token from a farm pool and withdraw some reward Harvest [MsgHarvest](#) [MsgHarvestResponse](#) Harvest defines a method withdraw some reward from a farm pool end services

[Top](#)

<#>

guardian/guardian.proto

<#>

Super

Super defines the super standard

Field Type Label Description description [string](#) account\_type [AccountType](#) address [string](#) added\_by [string](#) end messages

<#>

AccountType

AccountType defines the super account type

Name Number Description GENESIS 0 GENESIS defines a genesis account type ORDINARY 1 ORDINARY defines a ordinary account type end enumsend HasExtensionsend services

[Top](#)

<#>

guardian/genesis.proto

<#>

GenesisState

GenesisState defines the guardian module's genesis state

Field Type Label Description supers [Super](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

guardian/query.proto

## #

QuerySupersRequest

QuerySupersRequest is request type for the Query/Supers RPC method

Field Type Label Description pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request

## #

QuerySupersResponse

QuerySupersResponse is response type for the Query/Supers RPC method

Field Type Label Description supers [Super](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#) end messagesend enumsend HasExtensions

## #

Query

Query creates service with guardian as RPC

Method Name Request Type Response Type Description HTTP Verb Endpoint Supers [QuerySupersRequest](#) [QuerySupersResponse](#)  
Supers returns all Supers GET /irishub/guardian/supers end services

[Top](#)

## #

guardian/tx.proto

## #

MsgAddSuper

MsgAddSuper defines the properties of add super account message

Field Type Label Description description [string](#) address [string](#) added\_by [string](#)

## #

MsgAddSuperResponse

MsgAddSuperResponse defines the Msg/AddSuper response type

## #

MsgDeleteSuper

MsgDeleteSuper defines the properties of delete super account message

Field Type Label Description address [string](#) deleted\_by [string](#)

## #

MsgDeleteSuperResponse

MsgDeleteSuperResponse defines the Msg/DeleteSuper response type

end messagesend enumsend HasExtensions

## #

Msg

Msg defines the guardian Msg service

Method Name Request Type Response Type Description HTTP Verb Endpoint AddSuper [MsgAddSuper](#) [MsgAddSuperResponse](#)  
AddSuper defines a method for adding a super account DeleteSuper [MsgDeleteSuper](#) [MsgDeleteSuperResponse](#) DeleteSuper defines a method for deleting a super account end services

[Top](#)

## #

htlc/htlc.proto

#

AssetParam

Field Type Label Description denom [string](#)

name of the asset supply\_limit [SupplyLimit](#)

asset supply limit active [bool](#)

denotes if asset is available or paused deputy\_address [string](#)

the address of the relayer process fixed\_fee [string](#)

the fixed fee charged by the relayer process for outgoing swaps min\_swap\_amount [string](#)

Minimum swap amount max\_swap\_amount [string](#)

Maximum swap amount min\_block\_lock [uint64](#)

Minimum swap block lock max\_block\_lock [uint64](#)

Maximum swap block lock

#

AssetSupply

Field Type Label Description incoming\_supply [cosmos.base.v1beta1.Coin](#) outgoing\_supply [cosmos.base.v1beta1.Coin](#) current\_supply [cosmos.base.v1beta1.Coin](#) time\_limited\_current\_supply [cosmos.base.v1beta1.Coin](#) time\_elapsed [google.protobuf.Duration](#)

#

HTLC

HTLC defines the struct of an HTLC

Field Type Label Description id [string](#) sender [string](#) to [string](#) receiver\_on\_other\_chain [string](#) sender\_on\_other\_chain [string](#) amount [cosmos.base.v1beta1.Coin](#) repeated hash\_lock [string](#) secret [string](#) timestamp [uint64](#) expiration\_height [uint64](#) state [HTLCState](#) closed\_block [uint64](#) transfer [bool](#) direction [SwapDirection](#)

#

Params

Params defines token module's parameters

Field Type Label Description asset\_params [AssetParam](#) repeated

#

SupplyLimit

Field Type Label Description limit [string](#)

the absolute supply limit for an asset time\_limited [bool](#)

boolean for if the supply is also limited by time time\_period [google.protobuf.Duration](#)

the duration for which the supply time limit applies time\_based\_limit [string](#)

the supply limit for an asset for each time period end messages

#

HTLCState

HTLCState defines the state of an HTLC

Name Number Description HTLC\_STATE\_OPEN 0 HTLC\_STATE\_OPEN defines an open state. HTLC\_STATE\_COMPLETED 1 HTLC\_STATE\_COMPLETED defines a completed state. HTLC\_STATE\_REFUNDED 2 HTLC\_STATE\_REFUNDED defines a refunded state.

#

SwapDirection

SwapDirection defines the direction of an HTLT

Name Number Description NONE 0 NONE defines an htlc none direction. INCOMING 1 INCOMING defines an htlc incoming direction. OUTGOING 2 OUTGOING defines an htlc outgoing direction. end enumsend HasExtensionsend services

[Top](#)

#

htlc/genesis.proto

#

GenesisState

GenesisState defines the HTLC module's genesis state

Field Type Label Description params [Params](#) htlcs [HTLC](#) repeated supplies [AssetSupply](#) repeated previous\_block\_time [google.protobuf.Timestamp](#) end messagesend enumsend HasExtensionsend services

[Top](#)

#

htlc/query.proto

#

QueryAssetSuppliesRequest

QueryAssetSuppliesRequest is request type for the Query/AssetSupplies RPC method

#

QueryAssetSuppliesResponse

QueryAssetSuppliesResponse is response type for the Query/AssetSupplies RPC method

Field Type Label Description asset\_supplies [AssetSupply](#) repeated

#

QueryAssetSupplyRequest

QueryAssetSupplyRequest is request type for the Query/AssetSupply RPC method

Field Type Label Description denom [string](#)

#

QueryAssetSupplyResponse

QueryAssetSupplyResponse is response type for the Query/AssetSupply RPC method

Field Type Label Description asset\_supply [AssetSupply](#)

#

QueryHTLCRequest

QueryHTLCRequest is the request type for the Query/HTLC RPC method

Field Type Label Description id [string](#)

#

QueryHTLCResponse

QueryBalanceResponse is the response type for the Query/HTLC RPC method

Field Type Label Description htlc [HTLC](#)

#

QueryParamsRequest

QueryParamsRequest is request type for the Query/Parameters RPC method

## #

QueryParamsResponse

QueryParamsResponse is response type for the Query/Parameters RPC method

Field Type Label Description params [Params](#) end messagesend enumsend HasExtensions

## #

Query

Query provides defines the gRPC querier service

Method Name Request Type Response Type Description HTTP Verb Endpoint HTLC [QueryHTLCRequest](#) [QueryHTLCResponse](#) HTLC queries the HTLC by the specified hash lock GET /irismod/htlc/htlcs/{id} AssetSupply [QueryAssetSupplyRequest](#) [QueryAssetSupplyResponse](#) AssetSupply queries the supply of an asset GET /irismod/htlc/supplies/{denom} AssetSupplies [QueryAssetSuppliesRequest](#) [QueryAssetSuppliesResponse](#) AssetSupplies queries the supplies of all assets GET /irismod/htlc/supplies Params [QueryParamsRequest](#) [QueryParamsResponse](#) Params queries the htlc parameters GET /irismod/htlc/params end services

[Top](#)

## #

htlc/tx.proto

## #

MsgClaimHTLC

MsgClaimHTLC defines a message to claim an HTLC

Field Type Label Description sender [string](#) id [string](#) secret [string](#)

## #

MsgClaimHTLCResponse

MsgClaimHTLCResponse defines the Msg/ClaimHTLC response type

## #

MsgCreateHTLC

MsgCreateHTLC defines a message to create an HTLC

Field Type Label Description sender [string](#) to [string](#) receiver\_on\_other\_chain [string](#) sender\_on\_other\_chain [string](#) amount [cosmos.base.v1beta1.Coin](#) repeated hash\_lock [string](#) timestamp [uint64](#) time\_lock [uint64](#) transfer [bool](#)

## #

MsgCreateHTLCResponse

MsgCreateHTLCResponse defines the Msg/CreateHTLC response type

Field Type Label Description id [string](#) end messagesend enumsend HasExtensions

## #

Msg

Msg defines the HTLC Msg service

Method Name Request Type Response Type Description HTTP Verb Endpoint CreateHTLC [MsgCreateHTLC](#) [MsgCreateHTLCResponse](#) CreateHTLC defines a method for creating a HTLC ClaimHTLC [MsgClaimHTLC](#) [MsgClaimHTLCResponse](#) ClaimHTLC defines a method for claiming a HTLC end services

[Top](#)

## #

ibc/applications/transfer/v1/transfer.proto

## #

DenomTrace

DenomTrace contains the base denomination for ICS20 fungible tokens and the source tracing information path.

Field Type Label Description path [string](#)

path defines the chain of port/channel identifiers used for tracing the source of the fungible token. base\_denom [string](#)

base denomination of the relayed fungible token.

#

FungibleTokenPacketData

FungibleTokenPacketData defines a struct for the packet payload See FungibleTokenPacketData spec: <https://github.com/cosmos/ics/tree/master/spec/ics-020-fungible-token-transfer#data-structures>

Field Type Label Description denom [string](#)

the token denomination to be transferred amount [uint64](#)

the token amount to be transferred sender [string](#)

the sender address receiver [string](#)

the recipient address on the destination chain

#

Params

Params defines the set of IBC transfer parameters. NOTE: To prevent a single token from being transferred, set the TransfersEnabled parameter to true and then set the bank module's SendEnabled parameter for the denomination to false.

Field Type Label Description send\_enabled [bool](#)

send\_enabled enables or disables all cross-chain token transfers from this chain. receive\_enabled [bool](#)

receive\_enabled enables or disables all cross-chain token transfers to this chain. end messagesend enumsend HasExtensionsend services

[Top](#)

#

ibc/applications/transfer/v1/genesis.proto

#

GenesisState

GenesisState defines the ibc-transfer genesis state

Field Type Label Description port\_id [string](#) denom\_traces [DenomTrace](#) repeated params [Params](#) end messagesend enumsend HasExtensionsend services

[Top](#)

#

ibc/applications/transfer/v1/query.proto

#

QueryDenomTraceRequest

QueryDenomTraceRequest is the request type for the Query/DenomTrace RPC method

Field Type Label Description hash [string](#)

hash (in hex format) of the denomination trace information.

#

QueryDenomTraceResponse

QueryDenomTraceResponse is the response type for the Query/DenomTrace RPC method.

Field Type Label Description denom\_trace [DenomTrace](#)

denom\_trace returns the requested denomination trace information.

## #

QueryDenomTracesRequest

QueryConnectionsRequest is the request type for the Query/DenomTraces RPC method

Field Type Label Description pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

## #

QueryDenomTracesResponse

QueryConnectionsResponse is the response type for the Query/DenomTraces RPC method.

Field Type Label Description denom\_traces [DenomTrace](#) repeated denom\_traces returns all denominations trace information. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines the pagination in the response.

## #

QueryParamsRequest

QueryParamsRequest is the request type for the Query/Params RPC method.

## #

QueryParamsResponse

QueryParamsResponse is the response type for the Query/Params RPC method.

Field Type Label Description params [Params](#)

params defines the parameters of the module. end messagesend enumsend HasExtensions

## #

Query

Query provides defines the gRPC querier service.

Method Name Request Type Response Type Description HTTP Verb Endpoint DenomTrace [QueryDenomTraceRequest](#) [QueryDenomTraceResponse](#) DenomTrace queries a denomination trace information. GET /ibc/applications/transfer/v1beta1/denom\_traces/{hash} DenomTraces [QueryDenomTracesRequest](#) [QueryDenomTracesResponse](#) DenomTraces queries all denomination traces. GET /ibc/applications/transfer/v1beta1/denom\_traces Params [QueryParamsRequest](#) [QueryParamsResponse](#) Params queries all parameters of the ibc-transfer module. GET /ibc/applications/transfer/v1beta1/params end services

[Top](#)

## #

ibc/core/client/v1/client.proto

## #

ClientConsensusStates

ClientConsensusStates defines all the stored consensus states for a given client.

Field Type Label Description client\_id [string](#)

client identifier consensus\_states [ConsensusStateWithHeight](#) repeated consensus states and their heights associated with the client

## #

ClientUpdateProposal

ClientUpdateProposal is a governance proposal. If it passes, the client is updated with the provided header. The update may fail if the header is not valid given certain conditions specified by the client implementation.

Field Type Label Description title [string](#)

the title of the update proposal description [string](#)

the description of the proposal client\_id [string](#)



the client identifier for the client to be updated if the proposal passes header [google.protobuf.Any](#)

the header used to update the client if the proposal passes

#

ConsensusStateWithHeight

ConsensusStateWithHeight defines a consensus state with an additional height field.

Field Type Label Description height [Height](#)

consensus state height consensus\_state [google.protobuf.Any](#)

consensus state

#

Height

Height is a monotonically increasing data type that can be compared against another Height for the purposes of updating and freezing clients

Normally the RevisionHeight is incremented at each height while keeping RevisionNumber the same. However some consensus algorithms may choose to reset the height in certain conditions e.g. hard forks, state-machine breaking changes In these cases, the RevisionNumber is incremented so that height continues to be monotonically increasing even as the RevisionHeight gets reset

Field Type Label Description revision\_number [uint64](#)

the revision that the client is currently on revision\_height [uint64](#)

the height within the given revision

#

IdentifiedClientState

IdentifiedClientState defines a client state with an additional client identifier field.

Field Type Label Description client\_id [string](#)

client identifier client\_state [google.protobuf.Any](#)

client state

#

Params

Params defines the set of IBC light client parameters.

Field Type Label Description allowed\_clients [string](#) repeated allowed\_clients defines the list of allowed client state types. end messagesend enumsend HasExtensionsend services

[Top](#)

#

ibc/applications/transfer/v1/tx.proto

#

MsgTransfer

MsgTransfer defines a msg to transfer fungible tokens (i.e Coins) between ICS20 enabled chains. See ICS Spec here: <https://github.com/cosmos/ics/tree/master/spec/ics-020-fungible-token-transfer#data-structures>

Field Type Label Description source\_port [string](#)

the port on which the packet will be sent source\_channel [string](#)

the channel by which the packet will be sent token [cosmos.base.v1beta1.Coin](#)

the tokens to be transferred sender [string](#)

the sender address receiver [string](#)

the recipient address on the destination chain timeout\_height [ibc.core.client.v1.Height](#)

Timeout height relative to the current block height. The timeout is disabled when set to 0. timeout\_timestamp [uint64](#)

Timeout timestamp (in nanoseconds) relative to the current block timestamp. The timeout is disabled when set to 0.

#

MsgTransferResponse

MsgTransferResponse defines the Msg/Transfer response type.

end messagesend enumsend HasExtensions

#

Msg

Msg defines the ibc/transfer Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint Transfer [MsgTransfer](#) [MsgTransferResponse](#) Transfer defines a rpc handler method for MsgTransfer. end services

[Top](#)

#

ibc/core/channel/v1/channel.proto

#

Acknowledgement

Acknowledgement is the recommended acknowledgement format to be used by app-specific protocols. NOTE: The field numbers 21 and 22 were explicitly chosen to avoid accidental conflicts with other protobuf message formats used for acknowledgements. The first byte of any message with this format will be the non-ASCII values 0xaa (result) or 0xb2 (error). Implemented as defined by ICS: <https://github.com/cosmos/ics/tree/master/spec/ics-004-channel-and-packet-semantics#acknowledgement-envelope>

Field Type Label Description result [bytes](#) error [string](#)

#

Channel

Channel defines pipeline for exactly-once packet delivery between specific modules on separate blockchains, which has at least one end capable of sending packets and one end capable of receiving packets.

Field Type Label Description state [State](#)

current state of the channel end ordering [Order](#)

whether the channel is ordered or unordered counterparty [Counterparty](#)

counterparty channel end connection\_hops [string](#) repeated list of connection identifiers, in order, along which packets sent on this channel will travel version [string](#)

opaque channel version, which is agreed upon during the handshake

#

Counterparty

Counterparty defines a channel end counterparty

Field Type Label Description port\_id [string](#)

port on the counterparty chain which owns the other end of the channel. channel\_id [string](#)

channel end on the counterparty chain

#

IdentifiedChannel

IdentifiedChannel defines a channel with additional port and channel identifier fields.

Field Type Label Description state [State](#)

current state of the channel end ordering [Order](#)

whether the channel is ordered or unordered counterparty [Counterparty](#)

counterparty channel end connection\_hops [string](#) repeated list of connection identifiers, in order, along which packets sent on this channel will travel version [string](#)

opaque channel version, which is agreed upon during the handshake port\_id [string](#)

port identifier channel\_id [string](#)

channel identifier

#

Packet

Packet defines a type that carries data across different chains through IBC

Field Type Label Description sequence [uint64](#)

number corresponds to the order of sends and receives, where a Packet with an earlier sequence number must be sent and received before a Packet with a later sequence number. source\_port [string](#)

identifies the port on the sending chain. source\_channel [string](#)

identifies the channel end on the sending chain. destination\_port [string](#)

identifies the port on the receiving chain. destination\_channel [string](#)

identifies the channel end on the receiving chain. data [bytes](#)

actual opaque bytes transferred directly to the application module timeout\_height [ibc.core.client.v1.Height](#)

block height after which the packet times out timeout\_timestamp [uint64](#)

block timestamp (in nanoseconds) after which the packet times out

#

PacketState

PacketState defines the generic type necessary to retrieve and store packet commitments, acknowledgements, and receipts. Caller is responsible for knowing the context necessary to interpret this state as a commitment, acknowledgement, or a receipt.

Field Type Label Description port\_id [string](#)

channel port identifier. channel\_id [string](#)

channel unique identifier. sequence [uint64](#)

packet sequence. data [bytes](#)

embedded data that represents packet state. end messages

#

Order

Order defines if a channel is ORDERED or UNORDERED

Name Number Description ORDER\_NONE\_UNSPECIFIED 0 zero-value for channel ordering ORDER\_UNORDERED 1 packets can be delivered in any order, which may differ from the order in which they were sent. ORDER\_ORDERED 2 packets are delivered exactly in the order which they were sent

#

State

State defines if a channel is in one of the following states: CLOSED, INIT, TRYOPEN, OPEN or UNINITIALIZED.

Name Number Description STATE\_UNINITIALIZED\_UNSPECIFIED 0 Default State STATE\_INIT 1 A channel has just started the opening handshake. STATE\_TRYOPEN 2 A channel has acknowledged the handshake step on the counterparty chain. STATE\_OPEN 3 A channel has completed the handshake. Open channels are ready to send and receive packets. STATE\_CLOSED 4 A channel has been closed and can no longer be used to send or receive packets. end enumsend HasExtensionsend services

[Top](#)

#

ibc/core/channel/v1/genesis.proto

#

## GenesisState

GenesisState defines the ibc channel submodule's genesis state.

Field Type Label Description channels [IdentifiedChannel](#) repeated acknowledgements [PacketState](#) repeated commitments [PacketState](#) repeated receipts [PacketState](#) repeated send\_sequences [PacketSequence](#) repeated recv\_sequences [PacketSequence](#) repeated ack\_sequences [PacketSequence](#) repeated next\_channel\_sequence [uint64](#)

the sequence for the next generated channel identifier

#

## PacketSequence

PacketSequence defines the genesis type necessary to retrieve and store next send and receive sequences.

Field Type Label Description port\_id [string](#) channel\_id [string](#) sequence [uint64](#) end messagesend enumsend HasExtensionsend services  
[Top](#)

#

ibc/core/channel/v1/query.proto

#

## QueryChannelClientStateRequest

QueryChannelClientStateRequest is the request type for the Query/ClientState RPC method

Field Type Label Description port\_id [string](#)

port unique identifier channel\_id [string](#)

channel unique identifier

#

## QueryChannelClientStateResponse

QueryChannelClientStateResponse is the Response type for the Query/QueryChannelClientState RPC method

Field Type Label Description identified\_client\_state [ibc.core.client.v1.IdentifiedClientState](#)

client state associated with the channel proof[bytes](#)

merkle proof of existence proof\_height [ibc.core.client.v1.Height](#)

height at which the proof was retrieved

#

## QueryChannelConsensusStateRequest

QueryChannelConsensusStateRequest is the request type for the Query/ConsensusState RPC method

Field Type Label Description port\_id [string](#)

port unique identifier channel\_id [string](#)

channel unique identifier revision\_number [uint64](#)

revision number of the consensus state revision\_height [uint64](#)

revision height of the consensus state

#

## QueryChannelConsensusStateResponse

QueryChannelClientStateResponse is the Response type for the Query/QueryChannelClientState RPC method

Field Type Label Description consensus\_state [google.protobuf.Any](#)

consensus state associated with the channel client\_id [string](#)

client ID associated with the consensus state proof[bytes](#)

merkle proof of existence proof\_height [ibc.core.client.v1.Height](#)

height at which the proof was retrieved

#

QueryChannelRequest

QueryChannelRequest is the request type for the Query/Channel RPC method

Field Type Label Description port\_id [string](#)

port unique identifier channel\_id [string](#)

channel unique identifier

#

QueryChannelResponse

QueryChannelResponse is the response type for the Query/Channel RPC method. Besides the Channel end, it includes a proof and the height from which the proof was retrieved.

Field Type Label Description channel [Channel](#)

channel associated with the request identifiers proof [bytes](#)

merkle proof of existence proof\_height [ibc.core.client.v1.Height](#)

height at which the proof was retrieved

#

QueryChannelsRequest

QueryChannelsRequest is the request type for the Query/Channels RPC method

Field Type Label Description pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination request

#

QueryChannelsResponse

QueryChannelsResponse is the response type for the Query/Channels RPC method.

Field Type Label Description channels [IdentifiedChannel](#) repeated list of stored channels of the chain. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination response height [ibc.core.client.v1.Height](#)

query block height

#

QueryConnectionChannelsRequest

QueryConnectionChannelsRequest is the request type for the Query/QueryConnectionChannels RPC method

Field Type Label Description connection [string](#)

connection unique identifier pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination request

#

QueryConnectionChannelsResponse

QueryConnectionChannelsResponse is the Response type for the Query/QueryConnectionChannels RPC method

Field Type Label Description channels [IdentifiedChannel](#) repeated list of channels associated with a connection. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination response height [ibc.core.client.v1.Height](#)

query block height

#

QueryNextSequenceReceiveRequest

QueryNextSequenceReceiveRequest is the request type for the Query/QueryNextSequenceReceiveRequest RPC method

Field Type Label Description port\_id [string](#)

port unique identifier channel\_id [string](#)

channel unique identifier

#

QueryNextSequenceReceiveResponse

QuerySequenceResponse is the request type for the Query/QueryNextSequenceReceiveResponse RPC method

Field Type Label Description next\_sequence\_receive [uint64](#)

next sequence receive number proof [bytes](#)

merkle proof of existence proof\_height [ibc.core.client.v1.Height](#)

height at which the proof was retrieved

#

QueryPacketAcknowledgementRequest

QueryPacketAcknowledgementRequest is the request type for the Query/QueryPacketAcknowledgement RPC method

Field Type Label Description port\_id [string](#)

port unique identifier channel\_id [string](#)

channel unique identifier sequence [uint64](#)

packet sequence

#

QueryPacketAcknowledgementResponse

QueryPacketAcknowledgementResponse defines the client query response for a packet which also includes a proof and the height from which the proof was retrieved

Field Type Label Description acknowledgement [bytes](#)

packet associated with the request fields proof [bytes](#)

merkle proof of existence proof\_height [ibc.core.client.v1.Height](#)

height at which the proof was retrieved

#

QueryPacketAcknowledgementsRequest

QueryPacketAcknowledgementsRequest is the request type for the Query/QueryPacketCommitments RPC method

Field Type Label Description port\_id [string](#)

port unique identifier channel\_id [string](#)

channel unique identifier pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination request

#

QueryPacketAcknowledgementsResponse

QueryPacketAcknowledgementsResponse is the request type for the Query/QueryPacketAcknowledgements RPC method

Field Type Label Description acknowledgements [PacketState](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination response height [ibc.core.client.v1.Height](#)

query block height

#

QueryPacketCommitmentRequest

QueryPacketCommitmentRequest is the request type for the Query/PacketCommitment RPC method

Field Type Label Description port\_id [string](#)

port unique identifier channel\_id [string](#)

channel unique identifier sequence [uint64](#)

packet sequence

#

QueryPacketCommitmentResponse

QueryPacketCommitmentResponse defines the client query response for a packet which also includes a proof and the height from which the proof was retrieved

Field Type Label Description commitment [bytes](#)

packet associated with the request fields proof [bytes](#)

merkle proof of existence proof\_height [ibc.core.client.v1.Height](#)

height at which the proof was retrieved

#

QueryPacketCommitmentsRequest

QueryPacketCommitmentsRequest is the request type for the Query/QueryPacketCommitments RPC method

Field Type Label Description port\_id [string](#)

port unique identifier channel\_id [string](#)

channel unique identifier pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination request

#

QueryPacketCommitmentsResponse

QueryPacketCommitmentsResponse is the request type for the Query/QueryPacketCommitments RPC method

Field Type Label Description commitments [PacketState](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination response height [ibc.core.client.v1.Height](#)

query block height

#

QueryPacketReceiptRequest

QueryPacketReceiptRequest is the request type for the Query/PacketReceipt RPC method

Field Type Label Description port\_id [string](#)

port unique identifier channel\_id [string](#)

channel unique identifier sequence [uint64](#)

packet sequence

#

QueryPacketReceiptResponse

QueryPacketReceiptResponse defines the client query response for a packet receipt which also includes a proof, and the height from which the proof was retrieved

Field Type Label Description received [bool](#)

success flag for if receipt exists proof [bytes](#)

merkle proof of existence proof\_height [ibc.core.client.v1.Height](#)

height at which the proof was retrieved

## #

### QueryUnreceivedAcksRequest

QueryUnreceivedAcks is the request type for the Query/UnreceivedAcks RPC method

Field Type Label Description port\_id [string](#)

port unique identifier channel\_id [string](#)

channel unique identifier packet\_ack\_sequences [uint64](#) repeated list of acknowledgement sequences

## #

### QueryUnreceivedAcksResponse

QueryUnreceivedAcksResponse is the response type for the Query/UnreceivedAcks RPC method

Field Type Label Description sequences [uint64](#) repeated list of unreceived acknowledgement sequences height [ibc.core.client.v1.Height](#)

query block height

## #

### QueryUnreceivedPacketsRequest

QueryUnreceivedPacketsRequest is the request type for the Query/UnreceivedPackets RPC method

Field Type Label Description port\_id [string](#)

port unique identifier channel\_id [string](#)

channel unique identifier packet\_commitment\_sequences [uint64](#) repeated list of packet sequences

## #

### QueryUnreceivedPacketsResponse

QueryUnreceivedPacketsResponse is the response type for the Query/UnreceivedPacketCommitments RPC method

Field Type Label Description sequences [uint64](#) repeated list of unreceived packet sequences height [ibc.core.client.v1.Height](#)

query block height end messagesend enumsend HasExtensions

## #

### Query

Query provides defines the gRPC querier service

Method Name Request Type Response Type Description HTTP Verb Endpoint Channel [QueryChannelRequest](#) [QueryChannelResponse](#) Channel queries an IBC Channel. GET /ibc/core/channel/v1beta1/channels/{channel\_id}/ports/{port\_id} Channels [QueryChannelsRequest](#) [QueryChannelsResponse](#) Channels queries all the IBC channels of a chain. GET /ibc/core/channel/v1beta1/channels ConnectionChannels [QueryConnectionChannelsRequest](#) [QueryConnectionChannelsResponse](#) ConnectionChannels queries all the channels associated with a connection end. GET /ibc/core/channel/v1beta1/connections/{connection}/channels ChannelClientState [QueryChannelClientStateRequest](#) [QueryChannelClientStateResponse](#) ChannelClientState queries for the client state for the channel associated with the provided channel identifiers. GET /ibc/core/channel/v1beta1/channels/{channel\_id}/ports/{port\_id}/client\_state ChannelConsensusState [QueryChannelConsensusStateRequest](#) [QueryChannelConsensusStateResponse](#) ChannelConsensusState queries for the consensus state for the channel associated with the provided channel identifiers. GET /ibc/core/channel/v1beta1/channels/{channel\_id}/ports/{port\_id}/consensus\_state/revision/{revision\_number}/height/{revision\_height} PacketCommitment [QueryPacketCommitmentRequest](#) [QueryPacketCommitmentResponse](#) PacketCommitment queries a stored packet commitment hash. GET /ibc/core/channel/v1beta1/channels/{channel\_id}/ports/{port\_id}/packet\_commitments/{sequence} PacketCommitments [QueryPacketCommitmentsRequest](#) [QueryPacketCommitmentsResponse](#) PacketCommitments returns all the packet commitments hashes associated with a channel. GET /ibc/core/channel/v1beta1/channels/{channel\_id}/ports/{port\_id}/packet\_commitments PacketReceipt [QueryPacketReceiptRequest](#) [QueryPacketReceiptResponse](#) PacketReceipt queries if a given packet sequence has been received on the queried chain GET /ibc/core/channel/v1beta1/channels/{channel\_id}/ports/{port\_id}/packet\_receipts/{sequence} PacketAcknowledgement [QueryPacketAcknowledgementRequest](#) [QueryPacketAcknowledgementResponse](#) PacketAcknowledgement queries a stored packet acknowledgement hash. GET /ibc/core/channel/v1beta1/channels/{channel\_id}/ports/{port\_id}/packet\_acks/{sequence} PacketAcknowledgements [QueryPacketAcknowledgementsRequest](#) [QueryPacketAcknowledgementsResponse](#) PacketAcknowledgements returns all the packet acknowledgements associated with a channel. GET /ibc/core/channel/v1beta1/channels/{channel\_id}/ports/{port\_id}/packet\_acknowledgements UnreceivedPackets [QueryUnreceivedPacketsRequest](#) [QueryUnreceivedPacketsResponse](#) UnreceivedPackets returns all the unreceived IBC packets associated with a channel and sequences. GET /ibc/core/channel/v1beta1/channels/{channel\_id}/ports/{port\_id}/packet\_commitments/{packet\_commitment\_sequences}/unreceived\_packets UnreceivedAcks [QueryUnreceivedAcksRequest](#) [QueryUnreceivedAcksResponse](#) UnreceivedAcks returns all the unreceived IBC acknowledgements associated with a channel and sequences. GET /ibc/core/channel/v1beta1/channels/{channel\_id}/ports/{port\_id}/packet\_commitments/{packet\_ack\_sequences}/unreceived\_acks NextSequenceReceive [QueryNextSequenceReceiveRequest](#) [QueryNextSequenceReceiveResponse](#) NextSequenceReceive returns the



next receive sequence for a given channel. GET /ibc/core/channel/v1beta1/channels/{channel\_id}/ports/{port\_id}/next\_sequence\_end/services

[Top](#)

<#>

ibc/core/channel/v1/tx.proto

<#>

MsgAcknowledgement

MsgAcknowledgement receives incoming IBC acknowledgement

Field Type Label Description packet [Packet](#) acknowledgement [bytes](#) proof\_acked [bytes](#) proof\_height [ibc.core.client.v1.Height](#) signer [string](#)

<#>

MsgAcknowledgementResponse

MsgAcknowledgementResponse defines the Msg/Acknowledgement response type.

<#>

MsgChannelCloseConfirm

MsgChannelCloseConfirm defines a msg sent by a Relay to Chain B to acknowledge the change of channel state to CLOSED on Chain A.

Field Type Label Description port\_id [string](#) channel\_id [string](#) proof\_init [bytes](#) proof\_height [ibc.core.client.v1.Height](#) signer [string](#)

<#>

MsgChannelCloseConfirmResponse

MsgChannelCloseConfirmResponse defines the Msg/ChannelCloseConfirm response type.

<#>

MsgChannelCloseInit

MsgChannelCloseInit defines a msg sent by a Relay to Chain A to close a channel with Chain B.

Field Type Label Description port\_id [string](#) channel\_id [string](#) signer [string](#)

<#>

MsgChannelCloseInitResponse

MsgChannelCloseInitResponse defines the Msg/ChannelCloseInit response type.

<#>

MsgChannelOpenAck

MsgChannelOpenAck defines a msg sent by a Relay to Chain A to acknowledge the change of channel state to TRYOPEN on Chain B.

Field Type Label Description port\_id [string](#) channel\_id [string](#) counterparty\_channel\_id [string](#) counterparty\_version [string](#) proof\_try [bytes](#) proof\_height [ibc.core.client.v1.Height](#) signer [string](#)

<#>

MsgChannelOpenAckResponse

MsgChannelOpenAckResponse defines the Msg/ChannelOpenAck response type.

<#>

MsgChannelOpenConfirm

MsgChannelOpenConfirm defines a msg sent by a Relay to Chain B to acknowledge the change of channel state to OPEN on Chain A.

Field Type Label Description port\_id [string](#) channel\_id [string](#) proof\_ack [bytes](#) proof\_height [ibc.core.client.v1.Height](#) signer [string](#)

<#>

## MsgChannelOpenConfirmResponse

MsgChannelOpenConfirmResponse defines the Msg/ChannelOpenConfirm response type.

#

## MsgChannelOpenInit

MsgChannelOpenInit defines an sdk.Msg to initialize a channel handshake. It is called by a relayer on Chain A.

Field Type Label Description port\_id [string](#) channel [Channel](#) signer [string](#)

#

## MsgChannelOpenInitResponse

MsgChannelOpenInitResponse defines the Msg/ChannelOpenInit response type.

#

## MsgChannelOpenTry

MsgChannelOpenInit defines a msg sent by a Relayer to try to open a channel on Chain B.

Field Type Label Description port\_id [string](#) previous\_channel\_id [string](#)

in the case of crossing hello's, when both chains call OpenInit, we need the channel identifier of the previous channel in state INIT channel [Channel](#) counterparty\_version [string](#) proof\_init [bytes](#) proof\_height [ibc.core.client.v1.Height](#) signer [string](#)

#

## MsgChannelOpenTryResponse

MsgChannelOpenTryResponse defines the Msg/ChannelOpenTry response type.

#

## MsgRecvPacket

MsgRecvPacket receives incoming IBC packet

Field Type Label Description packet [Packet](#) proof\_commitment [bytes](#) proof\_height [ibc.core.client.v1.Height](#) signer [string](#)

#

## MsgRecvPacketResponse

MsgRecvPacketResponse defines the Msg/RecvPacket response type.

#

## MsgTimeout

MsgTimeout receives timed-out packet

Field Type Label Description packet [Packet](#) proof\_unreceived [bytes](#) proof\_height [ibc.core.client.v1.Height](#) next\_sequence\_recv [uint64](#) signer [string](#)

#

## MsgTimeoutOnClose

MsgTimeoutOnClose timed-out packet upon counterparty channel closure.

Field Type Label Description packet [Packet](#) proof\_unreceived [bytes](#) proof\_close [bytes](#) proof\_height [ibc.core.client.v1.Height](#) next\_sequence\_recv [uint64](#) signer [string](#)

#

## MsgTimeoutOnCloseResponse

MsgTimeoutOnCloseResponse defines the Msg/TimeoutOnClose response type.

#

## MsgTimeoutResponse

MsgTimeoutResponse defines the Msg/Timeout response type.

end messagesend enumsend HasExtensions

#

Msg

Msg defines the ibc/channel Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint ChannelOpenInit [MsgChannelOpenInit](#) [MsgChannelOpenInitResponse](#) ChannelOpenInit defines a rpc handler method for MsgChannelOpenInit. ChannelOpenTry [MsgChannelOpenTry](#) [MsgChannelOpenTryResponse](#) ChannelOpenTry defines a rpc handler method for MsgChannelOpenTry. ChannelOpenAck [MsgChannelOpenAck](#) [MsgChannelOpenAckResponse](#) ChannelOpenAck defines a rpc handler method for MsgChannelOpenAck. ChannelOpenConfirm [MsgChannelOpenConfirm](#) [MsgChannelOpenConfirmResponse](#) ChannelOpenConfirm defines a rpc handler method for MsgChannelOpenConfirm. ChannelCloseInit [MsgChannelCloseInit](#) [MsgChannelCloseInitResponse](#) ChannelCloseInit defines a rpc handler method for MsgChannelCloseInit. ChannelCloseConfirm [MsgChannelCloseConfirm](#) [MsgChannelCloseConfirmResponse](#) ChannelCloseConfirm defines a rpc handler method for MsgChannelCloseConfirm. RecvPacket [MsgRecvPacket](#) [MsgRecvPacketResponse](#) RecvPacket defines a rpc handler method for MsgRecvPacket. Timeout [MsgTimeout](#) [MsgTimeoutResponse](#) Timeout defines a rpc handler method for MsgTimeout. TimeoutOnClose [MsgTimeoutOnClose](#) [MsgTimeoutOnCloseResponse](#) TimeoutOnClose defines a rpc handler method for MsgTimeoutOnClose. Acknowledgement [MsgAcknowledgement](#) [MsgAcknowledgementResponse](#) Acknowledgement defines a rpc handler method for MsgAcknowledgement. end services

[Top](#)

#

ibc/core/client/v1/genesis.proto

#

GenesisMetadata

GenesisMetadata defines the genesis type for metadata that clients may return with ExportMetadata

Field Type Label Description key [bytes](#)

store key of metadata without clientID-prefix value [bytes](#)

metadata value

#

GenesisState

GenesisState defines the ibc client submodule's genesis state.

Field Type Label Description clients [IdentifiedClientState](#) repeated client states with their corresponding identifiers clients\_consensus [ClientConsensusStates](#) repeated consensus states from each client clients\_metadata [IdentifiedGenesisMetadata](#) repeated metadata from each client params [Params](#) create\_localhost [bool](#)

create localhost on initialization next\_client\_sequence [uint64](#)

the sequence for the next generated client identifier

#

IdentifiedGenesisMetadata

IdentifiedGenesisMetadata has the client metadata with the corresponding client id.

Field Type Label Description client\_id [string](#) client\_metadata [GenesisMetadata](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

#

ibc/core/client/v1/query.proto

#

QueryClientParamsRequest

QueryClientParamsRequest is the request type for the Query/ClientParams RPC method.

#

## QueryClientParamsResponse

QueryClientParamsResponse is the response type for the Query/ClientParams RPC method.

Field Type Label Description params [Params](#)

params defines the parameters of the module.

#

## QueryClientStateRequest

QueryClientStateRequest is the request type for the Query/ClientState RPC method

Field Type Label Description client\_id [string](#)

client state unique identifier

#

## QueryClientStateResponse

QueryClientStateResponse is the response type for the Query/ClientState RPC method. Besides the client state, it includes a proof and the height from which the proof was retrieved.

Field Type Label Description client\_state [google.protobuf.Any](#)

client state associated with the request identifier proof [bytes](#)

merkle proof of existence proof\_height [Height](#)

height at which the proof was retrieved

#

## QueryClientStatesRequest

QueryClientStatesRequest is the request type for the Query/ClientStates RPC method

Field Type Label Description pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination request

#

## QueryClientStatesResponse

QueryClientStatesResponse is the response type for the Query/ClientStates RPC method.

Field Type Label Description client\_states [IdentifiedClientState](#) repeated list of stored ClientStates of the chain. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination response

#

## QueryConsensusStateRequest

QueryConsensusStateRequest is the request type for the Query/ConsensusState RPC method. Besides the consensus state, it includes a proof and the height from which the proof was retrieved.

Field Type Label Description client\_id [string](#)

client identifier revision\_number [uint64](#)

consensus state revision number revision\_height [uint64](#)

consensus state revision height latest\_height [bool](#)

latest\_height overrides the height field and queries the latest stored ConsensusState

#

## QueryConsensusStateResponse

QueryConsensusStateResponse is the response type for the Query/ConsensusState RPC method

Field Type Label Description consensus\_state [google.protobuf.Any](#)

consensus state associated with the client identifier at the given height proof [bytes](#)

merkle proof of existence proof\_height [Height](#)

height at which the proof was retrieved

#

QueryConsensusStatesRequest

QueryConsensusStatesRequest is the request type for the Query/ConsensusStates RPC method.

Field Type Label Description client\_id [string](#)

client identifier pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination request

#

QueryConsensusStatesResponse

QueryConsensusStatesResponse is the response type for the Query/ConsensusStates RPC method

Field Type Label Description consensus\_states [ConsensusStateWithHeight](#) repeated consensus states associated with the identifier pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination response end messagesend enumsend HasExtensions

#

Query

Query provides defines the gRPC querier service

Method Name Request Type Response Type Description HTTP Verb Endpoint ClientState [QueryClientStateRequest](#) [QueryClientStateResponse](#) ClientState queries an IBC light client. GET /ibc/core/client/v1beta1/client\_states/{client\_id} ClientStates [QueryClientStatesRequest](#) [QueryClientStatesResponse](#) ClientStates queries all the IBC light clients of a chain. GET /ibc/core/client/v1beta1/client\_states ConsensusState [QueryConsensusStateRequest](#) [QueryConsensusStateResponse](#) ConsensusState queries a consensus state associated with a client state at a given height. GET /ibc/core/client/v1beta1/consensus\_states/{client\_id}/revision/{revision\_number}/height/{revision\_height} ConsensusStates [QueryConsensusStatesRequest](#) [QueryConsensusStatesResponse](#) ConsensusStates queries all the consensus state associated with a given client. GET /ibc/core/client/v1beta1/consensus\_states/{client\_id} ClientParams [QueryClientParamsRequest](#) [QueryClientParamsResponse](#) ClientParams queries all parameters of the ibc client. GET /ibc/client/v1beta1/params end services

[Top](#)

#

ibc/core/client/v1/tx.proto

#

MsgCreateClient

MsgCreateClient defines a message to create an IBC client

Field Type Label Description client\_state [google.protobuf.Any](#)

light client state consensus\_state [google.protobuf.Any](#)

consensus state associated with the client that corresponds to a given height. signer [string](#)

signer address

#

MsgCreateClientResponse

MsgCreateClientResponse defines the Msg/CreateClient response type.

#

MsgSubmitMisbehaviour

MsgSubmitMisbehaviour defines an sdk.Msg type that submits Evidence for light client misbehaviour.

Field Type Label Description client\_id [string](#)

client unique identifier misbehaviour [google.protobuf.Any](#)

misbehaviour used for freezing the light client signer [string](#)

signer address

#

MsgSubmitMisbehaviourResponse

MsgSubmitMisbehaviourResponse defines the Msg/SubmitMisbehaviour response type.

#

MsgUpdateClient

MsgUpdateClient defines an sdk.Msg to update a IBC client state using the given header.

Field Type Label Description client\_id [string](#)

client unique identifier header [google.protobuf.Any](#)

header to update the light client signer [string](#)

signer address

#

MsgUpdateClientResponse

MsgUpdateClientResponse defines the Msg/UpdateClient response type.

#

MsgUpgradeClient

MsgUpgradeClient defines an sdk.Msg to upgrade an IBC client to a new client state

Field Type Label Description client\_id [string](#)

client unique identifier client\_state [google.protobuf.Any](#)

upgraded client state consensus\_state [google.protobuf.Any](#)

upgraded consensus state, only contains enough information to serve as a basis of trust in update logic proof\_upgrade\_client [bytes](#)

proof that old chain committed to new client proof\_upgrade\_consensus\_state [bytes](#)

proof that old chain committed to new consensus state signer [string](#)

signer address

#

MsgUpgradeClientResponse

MsgUpgradeClientResponse defines the Msg/UpgradeClient response type.

end messagesend enumsend HasExtensions

#

Msg

Msg defines the ibc/client Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint CreateClient [MsgCreateClient](#) [MsgCreateClientResponse](#) CreateClient defines a rpc handler method for MsgCreateClient. UpdateClient [MsgUpdateClient](#) [MsgUpdateClientResponse](#) UpdateClient defines a rpc handler method for MsgUpdateClient. UpgradeClient [MsgUpgradeClient](#) [MsgUpgradeClientResponse](#) UpgradeClient defines a rpc handler method for MsgUpgradeClient. SubmitMisbehaviour [MsgSubmitMisbehaviour](#) [MsgSubmitMisbehaviourResponse](#) SubmitMisbehaviour defines a rpc handler method for MsgSubmitMisbehaviour. end services

[Top](#)

#

ibc/core/commitment/v1/commitment.proto

#

MerklePath

MerklePath is the path used to verify commitment proofs, which can be an arbitrary structured object (defined by a commitment type). MerklePath is represented from root-to-leaf

Field Type Label Description key\_path [string](#) repeated

#

MerklePrefix

MerklePrefix is merkle path prefixed to the key. The constructed key from the Path and the key will be append(Path.KeyPath, append(Path.KeyPrefix, key...))

Field Type Label Description key\_prefix [bytes](#)

#

MerkleProof

MerkleProof is a wrapper type over a chain of CommitmentProofs. It demonstrates membership or non-membership for an element or set of elements, verifiable in conjunction with a known commitment root. Proofs should be succinct. MerkleProofs are ordered from leaf-to-root

Field Type Label Description proofs [ics23.CommitmentProof](#) repeated

#

MerkleRoot

MerkleRoot defines a merkle root hash. In the Cosmos SDK, the AppHash of a block header becomes the root.

Field Type Label Description hash [bytes](#) end messagesend enumsend HasExtensionsend services

[Top](#)

#

ibc/core/connection/v1/connection.proto

#

ClientPaths

ClientPaths define all the connection paths for a client state.

Field Type Label Description paths [string](#) repeated list of connection paths

#

ConnectionEnd

ConnectionEnd defines a stateful object on a chain connected to another separate one. NOTE: there must only be 2 defined ConnectionEnds to establish a connection between two chains.

Field Type Label Description client\_id [string](#)

client associated with this connection. versions [Version](#) repeated IBC version which can be utilised to determine encodings or protocols for channels or packets utilising this connection. state [State](#)

current state of the connection end. counterparty [Counterparty](#)

counterparty chain associated with this connection. delay\_period [uint64](#)

delay period that must pass before a consensus state can be used for packet-verification NOTE: delay period logic is only implemented by some clients.

#

ConnectionPaths

ConnectionPaths define all the connection paths for a given client state.

Field Type Label Description client\_id [string](#)

client state unique identifier paths [string](#) repeated list of connection paths

#

Counterparty

Counterparty defines the counterparty chain associated with a connection end.

Field Type Label Description client\_id [string](#)

identifies the client on the counterparty chain associated with a given connection. connection\_id [string](#)

identifies the connection end on the counterparty chain associated with a given connection. prefix [ibc.core.commitment.v1.MerklePrefix](#)  
commitment merkle prefix of the counterparty chain.

#

IdentifiedConnection

IdentifiedConnection defines a connection with additional connection identifier field.

Field Type Label Description id [string](#)

connection identifier. client\_id [string](#)

client associated with this connection. versions [Version](#) repeated IBC version which can be utilised to determine encodings or protocols for channels or packets utilising this connection state [State](#)

current state of the connection end. counterparty [Counterparty](#)

counterparty chain associated with this connection. delay\_period [uint64](#)

delay period associated with this connection.

#

Version

Version defines the versioning scheme used to negotiate the IBC version in the connection handshake.

Field Type Label Description identifier [string](#)

unique version identifier features [string](#) repeated list of features compatible with the specified identifier end messages

#

State

State defines if a connection is in one of the following states: INIT, TRYOPEN, OPEN or UNINITIALIZED.

Name Number Description STATE\_UNINITIALIZED\_UNSPECIFIED 0 Default State STATE\_INIT 1 A connection end has just started the opening handshake. STATE\_TRYOPEN 2 A connection end has acknowledged the handshake step on the counterparty chain. STATE\_OPEN 3 A connection end has completed the handshake. end enumsend HasExtensionsend services

[Top](#)

#

ibc/core/connection/v1/genesis.proto

#

GenesisState

GenesisState defines the ibc connection submodule's genesis state.

Field Type Label Description connections [IdentifiedConnection](#) repeated client\_connection\_paths [ConnectionPaths](#) repeated next\_connection\_sequence [uint64](#)

the sequence for the next generated connection identifier end messagesend enumsend HasExtensionsend services

[Top](#)

#

ibc/core/connection/v1/query.proto

#

QueryClientConnectionsRequest

QueryClientConnectionsRequest is the request type for the Query/ClientConnections RPC method

Field Type Label Description client\_id [string](#)



client identifier associated with a connection

#

QueryClientConnectionsResponse

QueryClientConnectionsResponse is the response type for the Query/ClientConnections RPC method

Field Type Label Description connection\_paths [string](#) repeated slice of all the connection paths associated with a client. proof [bytes](#)

merkle proof of existence proof\_height [ibc.core.client.v1.Height](#)

height at which the proof was generated

#

QueryConnectionClientStateRequest

QueryConnectionClientStateRequest is the request type for the Query/ConnectionClientState RPC method

Field Type Label Description connection\_id [string](#)

connection identifier

#

QueryConnectionClientStateResponse

QueryConnectionClientStateResponse is the response type for the Query/ConnectionClientState RPC method

Field Type Label Description identified\_client\_state [ibc.core.client.v1.IdentifiedClientState](#)

client state associated with the channel proof [bytes](#)

merkle proof of existence proof\_height [ibc.core.client.v1.Height](#)

height at which the proof was retrieved

#

QueryConnectionConsensusStateRequest

QueryConnectionConsensusStateRequest is the request type for the Query/ConnectionConsensusState RPC method

Field Type Label Description connection\_id [string](#)

connection identifier revision\_number [uint64](#) revision\_height [uint64](#)

#

QueryConnectionConsensusStateResponse

QueryConnectionConsensusStateResponse is the response type for the Query/ConnectionConsensusState RPC method

Field Type Label Description consensus\_state [google.protobuf.Any](#)

consensus state associated with the channel client\_id [string](#)

client ID associated with the consensus state proof [bytes](#)

merkle proof of existence proof\_height [ibc.core.client.v1.Height](#)

height at which the proof was retrieved

#

QueryConnectionRequest

QueryConnectionRequest is the request type for the Query/Connection RPC method

Field Type Label Description connection\_id [string](#)

connection unique identifier

#

QueryConnectionResponse

QueryConnectionResponse is the response type for the Query/Connection RPC method. Besides the connection end, it includes a proof and the height from which the proof was retrieved.

Field Type Label Description connection [ConnectionEnd](#)

connection associated with the request identifier proof [bytes](#)

merkle proof of existence proof\_height [ibc.core.client.v1.Height](#)

height at which the proof was retrieved

#

QueryConnectionsRequest

QueryConnectionsRequest is the request type for the Query/Connections RPC method

Field Type Label Description pagination [cosmos.base.query.v1beta1.PageRequest](#)

#

QueryConnectionsResponse

QueryConnectionsResponse is the response type for the Query/Connections RPC method.

Field Type Label Description connections [IdentifiedConnection](#) repeated list of stored connections of the chain. pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination response height [ibc.core.client.v1.Height](#)

query block height end messagesend enumsend HasExtensions

#

Query

Query provides defines the gRPC querier service

Method Name Request Type Response Type Description HTTP Verb Endpoint Connection [QueryConnectionRequest](#) [QueryConnectionResponse](#) Connection queries an IBC connection end. GET /ibc/core/connection/v1beta1/connections/{connection\_id} Connections [QueryConnectionsRequest](#) [QueryConnectionsResponse](#) Connections queries all the IBC connections of a chain. GET /ibc/core/connection/v1beta1/connections ClientConnections [QueryClientConnectionsRequest](#) [QueryClientConnectionsResponse](#) ClientConnections queries the connection paths associated with a client state. GET /ibc/core/connection/v1beta1/client\_connections/{client\_id} ConnectionClientState [QueryConnectionClientStateRequest](#) [QueryConnectionClientStateResponse](#) ConnectionClientState queries the client state associated with the connection. GET /ibc/core/connection/v1beta1/connections/{connection\_id}/client\_state ConnectionConsensusState [QueryConnectionConsensusStateRequest](#) [QueryConnectionConsensusStateResponse](#) ConnectionConsensusState queries the consensus state associated with the connection. GET /ibc/core/connection/v1beta1/connections/{connection\_id}/consensus\_state/revision/{revision\_number}/height/{revision\_height} end services

[Top](#)

#

ibc/core/connection/v1/tx.proto

#

MsgConnectionOpenAck

MsgConnectionOpenAck defines a msg sent by a Relayer to Chain A to acknowledge the change of connection state to TRYOPEN on Chain B.

Field Type Label Description connection\_id [string](#) counterparty\_connection\_id [string](#) version [Version](#) client\_state [google.protobuf.Any](#) proof\_height [ibc.core.client.v1.Height](#) proof\_try [bytes](#)

proof of the initialization the connection on Chain B:UNINITIALIZED -> TRYOPEN proof\_client [bytes](#)

proof of client state included in message proof\_consensus [bytes](#)

proof of client consensus state consensus\_height [ibc.core.client.v1.Height](#) signer [string](#)

#

MsgConnectionOpenAckResponse

MsgConnectionOpenAckResponse defines the Msg/ConnectionOpenAck response type.

#

## MsgConnectionOpenConfirm

MsgConnectionOpenConfirm defines a msg sent by a Relay to Chain B to acknowledge the change of connection state to OPEN on Chain A.

Field Type Label Description connection\_id [string](#) proof\_ack [bytes](#)

proof for the change of the connection state on Chain A:INIT -> OPEN proof\_height [ibc.core.client.v1.Height](#) signer [string](#)

#

## MsgConnectionOpenConfirmResponse

MsgConnectionOpenConfirmResponse defines the Msg/ConnectionOpenConfirm response type.

#

## MsgConnectionOpenInit

MsgConnectionOpenInit defines the msg sent by an account on Chain A to initialize a connection with Chain B.

Field Type Label Description client\_id [string](#) counterparty [Counterparty](#) version [Version](#) delay\_period [uint64](#) signer [string](#)

#

## MsgConnectionOpenInitResponse

MsgConnectionOpenInitResponse defines the Msg/ConnectionOpenInit response type.

#

## MsgConnectionOpenTry

MsgConnectionOpenTry defines a msg sent by a Relay to try to open a connection on Chain B.

Field Type Label Description client\_id [string](#) previous\_connection\_id [string](#)

in the case of crossing hello's, when both chains call OpenInit, we need the connection identifier of the previous connection in state INIT client\_state [google.protobuf.Any](#) counterparty [Counterparty](#) delay\_period [uint64](#) counterparty\_versions [Version](#) repeated proof\_height [ibc.core.client.v1.Height](#) proof\_init [bytes](#)

proof of the initialization the connection on Chain A:UNINITIALIZED -> INIT proof\_client [bytes](#)

proof of client state included in message proof\_consensus [bytes](#)

proof of client consensus state consensus\_height [ibc.core.client.v1.Height](#) signer [string](#)

#

## MsgConnectionOpenTryResponse

MsgConnectionOpenTryResponse defines the Msg/ConnectionOpenTry response type.

end messagesend enumsend HasExtensions

#

## Msg

Msg defines the ibc/connection Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint ConnectionOpenInit [MsgConnectionOpenInit](#) [MsgConnectionOpenInitResponse](#) ConnectionOpenInit defines a rpc handler method for MsgConnectionOpenInit. ConnectionOpenTry [MsgConnectionOpenTry](#) [MsgConnectionOpenTryResponse](#) ConnectionOpenTry defines a rpc handler method for MsgConnectionOpenTry. ConnectionOpenAck [MsgConnectionOpenAck](#) [MsgConnectionOpenAckResponse](#) ConnectionOpenAck defines a rpc handler method for MsgConnectionOpenAck. ConnectionOpenConfirm [MsgConnectionOpenConfirm](#) [MsgConnectionOpenConfirmResponse](#) ConnectionOpenConfirm defines a rpc handler method for MsgConnectionOpenConfirm. end services

[Top](#)

#

ibc/core/types/v1/genesis.proto

#

## GenesisState

GenesisState defines the ibc module's genesis state.

Field Type Label Description client\_genesis [ibc.core.client.v1.GenesisState](#)

ICS002 - Clients genesis state connection\_genesis [ibc.core.connection.v1.GenesisState](#)

ICS003 - Connections genesis state channel\_genesis [ibc.core.channel.v1.GenesisState](#)

ICS004 - Channel genesis state end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

ibc/lightclients/localhost/v1/localhost.proto

<#>

ClientState

ClientState defines a loopback (localhost) client. It requires (read-only) access to keys outside the client prefix.

Field Type Label Description chain\_id [string](#)

self chain ID height [ibc.core.client.v1.Height](#)

self latest block height end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

ibc/lightclients/solomachine/v1/solomachine.proto

<#>

ChannelStateData

ChannelStateData returns the SignBytes data for channel state verification.

Field Type Label Description path [bytes](#) channel [ibc.core.channel.v1.Channel](#)

<#>

ClientState

ClientState defines a solo machine client that tracks the current consensus state and if the client is frozen.

Field Type Label Description sequence [uint64](#)

latest sequence of the client state frozen\_sequence [uint64](#)

frozen sequence of the solo machine consensus\_state [ConsensusState](#) allow\_update\_after\_proposal [bool](#)

when set to true, will allow governance to update a solo machine client. The client will be unfrozen if it is frozen.

<#>

ClientStateData

ClientStateData returns the SignBytes data for client state verification.

Field Type Label Description path [bytes](#) client\_state [google.protobuf.Any](#)

<#>

ConnectionStateData

ConnectionStateData returns the SignBytes data for connection state verification.

Field Type Label Description path [bytes](#) connection [ibc.core.connection.v1.ConnectionEnd](#)

<#>

ConsensusState

ConsensusState defines a solo machine consensus state. The sequence of a consensus state is contained in the "height" key used in storing the consensus state.

Field Type Label Description public\_key [google.protobuf.Any](#)

public key of the solo machine diversifier [string](#)

diversifier allows the same public key to be re-used across different solo machine clients (potentially on different chains) without being considered misbehaviour. timestamp [uint64](#)

#

ConsensusStateData

ConsensusStateData returns the SignBytes data for consensus state verification.

Field Type Label Description path [bytes](#) consensus\_state [google.protobuf.Any](#)

#

Header

Header defines a solo machine consensus header

Field Type Label Description sequence [uint64](#)

sequence to update solo machine public key at timestamp [uint64](#) signature [bytes](#) new\_public\_key [google.protobuf.Any](#) new\_diversifier [string](#)

#

HeaderData

HeaderData returns the SignBytes data for update verification.

Field Type Label Description new\_pub\_key [google.protobuf.Any](#)

header public key new\_diversifier [string](#)

header diversifier

#

Misbehaviour

Misbehaviour defines misbehaviour for a solo machine which consists of a sequence and two signatures over different messages at that sequence.

Field Type Label Description client\_id [string](#) sequence [uint64](#) signature\_one [SignatureAndData](#) signature\_two [SignatureAndData](#)

#

NextSequenceRecvData

NextSequenceRecvData returns the SignBytes data for verification of the next sequence to be received.

Field Type Label Description path [bytes](#) next\_seq\_recv [uint64](#)

#

PacketAcknowledgementData

PacketAcknowledgementData returns the SignBytes data for acknowledgement verification.

Field Type Label Description path [bytes](#) acknowledgement [bytes](#)

#

PacketCommitmentData

PacketCommitmentData returns the SignBytes data for packet commitment verification.

Field Type Label Description path [bytes](#) commitment [bytes](#)

#

PacketReceiptAbsenceData

PacketReceiptAbsenceData returns the SignBytes data for packet receipt absence verification.

Field Type Label Description path [bytes](#)

## #

### SignBytes

SignBytes defines the signed bytes used for signature verification.

Field Type Label Description sequence [uint64](#) timestamp [uint64](#) diversifier [string](#) data\_type [DataType](#)

type of the data used data [bytes](#)

marshaled data

## #

### SignatureAndData

SignatureAndData contains a signature and the data signed over to create that signature.

Field Type Label Description signature [bytes](#) data\_type [DataType](#) data [bytes](#) timestamp [uint64](#)

## #

### TimestampedSignatureData

TimestampedSignatureData contains the signature data and the timestamp of the signature.

Field Type Label Description signature\_data [bytes](#) timestamp [uint64](#) end messages

## #

### DataType

DataType defines the type of solo machine proof being created. This is done to preserve uniqueness of different data sign byte encodings.

Name Number Description DATA\_TYPE\_UNINITIALIZED\_UNSPECIFIED 0 Default State DATA\_TYPE\_CLIENT\_STATE 1 Data type for client state verification DATA\_TYPE\_CONSENSUS\_STATE 2 Data type for consensus state verification DATA\_TYPE\_CONNECTION\_STATE 3 Data type for connection state verification DATA\_TYPE\_CHANNEL\_STATE 4 Data type for channel state verification DATA\_TYPE\_PACKET\_COMMITMENT 5 Data type for packet commitment verification DATA\_TYPE\_PACKET\_ACKNOWLEDGEMENT 6 Data type for packet acknowledgement verification DATA\_TYPE\_PACKET\_RECEIPT\_ABSENCE 7 Data type for packet receipt absence verification DATA\_TYPE\_NEXT\_SEQUENCE\_RECV 8 Data type for next sequence recv verification DATA\_TYPE\_HEADER 9 Data type for header verification end enumsend HasExtensionsend services

## [Top](#)

## #

ibc/lightclients/tendermint/v1/tendermint.proto

## #

### ClientState

ClientState from Tendermint tracks the current validator set, latest height, and a possible frozen height.

Field Type Label Description chain\_id [string](#) trust\_level [Fraction](#) trusting\_period [google.protobuf.Duration](#)

duration of the period since the LastestTimestamp during which the submitted headers are valid for upgrade unbonding\_period [google.protobuf.Duration](#)

duration of the staking unbonding period max\_clock\_drift [google.protobuf.Duration](#)

defines how much new (untrusted) header's Time can drift into the future. frozen\_height [ibc.core.client.v1.Height](#)

Block height when the client was frozen due to a misbehaviour latest\_height [ibc.core.client.v1.Height](#)

Latest height the client was updated to proof\_specs [ics23.ProofSpec](#) repeated Proof specifications used in verifying counterparty state upgrade\_path [string](#) repeated Path at which next upgraded client will be committed. Each element corresponds to the key for a single CommitmentProof in the chained proof. NOTE: ClientState must stored under {upgradePath}/{upgradeHeight}/clientState ConsensusState must be stored under {upgradepath}/{upgradeHeight}/consensusState For SDK chains using the default upgrade module, upgrade\_path should be []string{"upgrade", "upgradedIBCState"} allow\_update\_after\_expiry [bool](#)

This flag, when set to true, will allow governance to recover a client which has expired allow\_update\_after\_misbehaviour [bool](#)

This flag, when set to true, will allow governance to unfreeze a client whose chain has experienced a misbehaviour event

## #

### ConsensusState

ConsensusState defines the consensus state from Tendermint.

Field Type Label Description timestamp [google.protobuf.Timestamp](#)

timestamp that corresponds to the block height in which the ConsensusState was stored. root [ibc.core.commitment.v1.MerkleRoot](#)

commitment root (i.e app hash) next\_validators\_hash [bytes](#)

#

Fraction

Fraction defines the protobuf message type for tmmath.Fraction that only supports positive values.

Field Type Label Description numerator [uint64](#) denominator [uint64](#)

#

Header

Header defines the Tendermint client consensus Header. It encapsulates all the information necessary to update from a trusted Tendermint ConsensusState. The inclusion of TrustedHeight and TrustedValidators allows this update to process correctly, so long as the ConsensusState for the TrustedHeight exists, this removes race conditions among relayers The SignedHeader and ValidatorSet are the new untrusted update fields for the client. The TrustedHeight is the height of a stored ConsensusState on the client that will be used to verify the new untrusted header. The Trusted ConsensusState must be within the unbonding period of current time in order to correctly verify, and the TrustedValidators must hash to TrustedConsensusState.NextValidatorsHash since that is the last trusted validator set at the TrustedHeight.

Field Type Label Description signed\_header [tendermint.types.SignedHeader](#) validator\_set [tendermint.types.ValidatorSet](#) trusted\_height [ibc.core.client.v1.Height](#) trusted\_validators [tendermint.types.ValidatorSet](#)

#

Misbehaviour

Misbehaviour is a wrapper over two conflicting Headers that implements Misbehaviour interface expected by ICS-02

Field Type Label Description client\_id [string](#) header\_1 [Header](#) header\_2 [Header](#) end messagesend enumsend HasExtensionsend services

[Top](#)

#

mint/mint.proto

#

Minter

Minter represents the minting state

Field Type Label Description last\_update [google.protobuf.Timestamp](#)

time which the last update was made to the minter inflation\_base [string](#)

base inflation

#

Params

Params defines mint module's parameters

Field Type Label Description mint\_denom [string](#)

type of coin to mint inflation [string](#)

inflation rate end messagesend enumsend HasExtensionsend services

[Top](#)

#

mint/genesis.proto

#

GenesisState

GenesisState defines the mint module's genesis state

Field Type Label Description minter [Minter](#) params [Params](#) end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

mint/query.proto

<#>

QueryParamsRequest

QueryParamsRequest is request type for the Query/Parameters RPC method

<#>

QueryParamsResponse

QueryParamsResponse is response type for the Query/Parameters RPC method

Field Type Label Description params [Params](#) res [cosmos.base.query.v1beta1.PageResponse](#) end messagesend enumsend HasExtensions

<#>

Query

Query creates service with guardian as rpc

Method Name Request Type Response Type Description HTTP Verb Endpoint Params [QueryParamsRequest](#) [QueryParamsResponse](#)  
Params queries the mint parameters GET /irishub/mint/params end services

[Top](#)

<#>

nft/nft.proto

<#>

BaseNFT

BaseNFT defines a non-fungible token

Field Type Label Description id [string](#) name [string](#) uri [string](#) data [string](#) owner [string](#)

<#>

Collection

Collection defines a type of collection

Field Type Label Description denom [Denom](#) nfts [BaseNFT](#) repeated

<#>

Denom

Denom defines a type of NFT

Field Type Label Description id [string](#) name [string](#) schema [string](#) creator [string](#) symbol [string](#) mint\_restricted [bool](#) update\_restricted [bool](#)

<#>

IDCollection

IDCollection defines a type of collection with specified ID

Field Type Label Description denom\_id [string](#) token\_ids [string](#) repeated

<#>

Owner



Owner defines a type of owner

Field Type Label Description address [string](#) id\_collections [IDCollection](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

#

nft/genesis.proto

#

GenesisState

GenesisState defines the NFT module's genesis state

Field Type Label Description collections [Collection](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

#

nft/query.proto

#

QueryCollectionRequest

QueryCollectionRequest is the request type for the Query/Collection RPC method

Field Type Label Description denom\_id [string](#) pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

QueryCollectionResponse

QueryCollectionResponse is the response type for the Query/Collection RPC method

Field Type Label Description collection [Collection](#) pagination [cosmos.base.query.v1beta1.PageResponse](#)

#

QueryDenomRequest

QueryDenomRequest is the request type for the Query/Denom RPC method

Field Type Label Description denom\_id [string](#)

#

QueryDenomResponse

QueryDenomResponse is the response type for the Query/Denom RPC method

Field Type Label Description denom [Denom](#)

#

QueryDenomsRequest

QueryDenomsRequest is the request type for the Query/Denoms RPC method

Field Type Label Description pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

QueryDenomsResponse

QueryDenomsResponse is the response type for the Query/Denoms RPC method

Field Type Label Description denoms [Denom](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

#

## QueryNFTRequest

QueryNFTRequest is the request type for the Query/NFT RPC method

Field Type Label Description denom\_id [string](#) token\_id [string](#)

#

## QueryNFTResponse

QueryNFTResponse is the response type for the Query/NFT RPC method

Field Type Label Description nft [BaseNFT](#)

#

## QueryOwnerRequest

QueryOwnerRequest is the request type for the Query/Owner RPC method

Field Type Label Description denom\_id [string](#) owner [string](#) pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

#

## QueryOwnerResponse

QueryOwnerResponse is the response type for the Query/Owner RPC method

Field Type Label Description owner [Owner](#) pagination [cosmos.base.query.v1beta1.PageResponse](#)

#

## QuerySupplyRequest

QuerySupplyRequest is the request type for the Query/HTLC RPC method

Field Type Label Description denom\_id [string](#) owner [string](#)

#

## QuerySupplyResponse

QuerySupplyResponse is the response type for the Query/Supply RPC method

Field Type Label Description amount [uint64](#) end messagesend enumsend HasExtensions

#

## Query

Query defines the gRPC querier service for NFT module

Method Name Request Type Response Type Description HTTP Verb Endpoint Supply [QuerySupplyRequest](#) [QuerySupplyResponse](#) Supply queries the total supply of a given denom or owner GET /irismod/nft/collections/{denom\_id}/supply Owner [QueryOwnerRequest](#) [QueryOwnerResponse](#) Owner queries the NFTs of the specified owner GET /irismod/nft/nfts Collection [QueryCollectionRequest](#) [QueryCollectionResponse](#) Collection queries the NFTs of the specified denom GET /irismod/nft/collections/{denom\_id} Denom [QueryDenomRequest](#) [QueryDenomResponse](#) Denom queries the definition of a given denom GET /irismod/nft/denoms/{denom\_id} Denoms [QueryDenomsRequest](#) [QueryDenomsResponse](#) Denoms queries all the denoms GET /irismod/nft/denoms NFT [QueryNFTRequest](#) [QueryNFTResponse](#) NFT queries the NFT for the given denom and token ID GET /irismod/nft/nfts/{denom\_id}/{token\_id} end services

[Top](#)

#

nft/tx.proto

#

## MsgBurnNFT

MsgBurnNFT defines an SDK message for burning a NFT.

Field Type Label Description id [string](#) denom\_id [string](#) sender [string](#)

#

MsgBurnNFTResponse

MsgBurnNFTResponse defines the Msg/BurnNFT response type.

#

MsgEditNFT

MsgEditNFT defines an SDK message for editing a nft.

Field Type Label Description id [string](#) denom\_id [string](#) name [string](#) uri [string](#) data [string](#) sender [string](#)

#

MsgEditNFTResponse

MsgEditNFTResponse defines the Msg/EditNFT response type.

#

MsgIssueDenom

MsgIssueDenom defines an SDK message for creating a new denom.

Field Type Label Description id [string](#) name [string](#) schema [string](#) sender [string](#) symbol [string](#) mint\_restricted [bool](#) update\_restricted [bool](#)

#

MsgIssueDenomResponse

MsgIssueDenomResponse defines the Msg/IssueDenom response type.

#

MsgMintNFT

MsgMintNFT defines an SDK message for creating a new NFT.

Field Type Label Description id [string](#) denom\_id [string](#) name [string](#) uri [string](#) data [string](#) sender [string](#) recipient [string](#)

#

MsgMintNFTResponse

MsgMintNFTResponse defines the Msg/MintNFT response type.

#

MsgTransferDenom

MsgTransferDenom defines an SDK message for transferring an denom to recipient.

Field Type Label Description id [string](#) sender [string](#) recipient [string](#)

#

MsgTransferDenomResponse

MsgTransferDenomResponse defines the Msg/TransferDenom response type.

#

MsgTransferNFT

MsgTransferNFT defines an SDK message for transferring an NFT to recipient.

Field Type Label Description id [string](#) denom\_id [string](#) name [string](#) uri [string](#) data [string](#) sender [string](#) recipient [string](#)

#

MsgTransferNFTResponse

MsgTransferNFTResponse defines the Msg/TransferNFT response type.

end messagesend enumsend HasExtensions

#

## Msg

Msg defines the nft Msg service.

Method Name Request Type Response Type Description HTTP Verb Endpoint IssueDenom [MsgIssueDenom](#) [MsgIssueDenomResponse](#) IssueDenom defines a method for issue a denom. MintNFT [MsgMintNFT](#) [MsgMintNFTResponse](#) MintNFT defines a method for mint a new nft EditNFT [MsgEditNFT](#) [MsgEditNFTResponse](#) RefundHTLC defines a method for editing a nft. TransferNFT [MsgTransferNFT](#) [MsgTransferNFTResponse](#) TransferNFT defines a method for transferring a nft. BurnNFT [MsgBurnNFT](#) [MsgBurnNFTResponse](#) BurnNFT defines a method for burning a nft. TransferDenom [MsgTransferDenom](#) [MsgTransferDenomResponse](#) TransferDenom defines a method for transferring a denom. end services

[Top](#)

## #

oracle/oracle.proto

## #

## Feed

Feed defines the feed standard

Field Type Label Description feed\_name [string](#) description [string](#) aggregate\_func [string](#) value\_json\_path [string](#) latest\_history [uint64](#) request\_context\_id [string](#) creator [string](#)

## #

## FeedValue

FeedValue defines the feed result standard

Field Type Label Description data [string](#) timestamp [google.protobuf.Timestamp](#) end messagesend enumsend HasExtensionsend services

[Top](#)

## #

service/service.proto

## #

## CompactRequest

CompactRequest defines a standard for compact request

Field Type Label Description request\_context\_id [string](#) request\_context\_batch\_counter [uint64](#) provider [string](#) service\_fee [cosmos.base.v1beta1.Coin](#) repeated request\_height [int64](#) expiration\_height [int64](#)

## #

## Params

Params defines service module's parameters

Field Type Label Description max\_request\_timeout [int64](#) min\_deposit\_multiple [int64](#) min\_deposit [cosmos.base.v1beta1.Coin](#) repeated service\_fee\_tax [string](#) slash\_fraction [string](#) complaint\_retrospect [google.protobuf.Duration](#) arbitration\_time\_limit [google.protobuf.Duration](#) tx\_size\_limit [uint64](#) base\_denom [string](#) restricted\_service\_fee\_denom [bool](#)

## #

## Pricing

Pricing defines a standard for service pricing

Field Type Label Description price [cosmos.base.v1beta1.Coin](#) repeated promotions\_by\_time [PromotionByTime](#) repeated promotions\_by\_volume [PromotionByVolume](#) repeated

## #

## PromotionByTime

PromotionByTime defines a standard for service promotion by time

Field Type Label Description start\_time [google.protobuf.Timestamp](#) end\_time [google.protobuf.Timestamp](#) discount [string](#)

## #

## PromotionByVolume

PromotionByVolume defines a standard for service promotion by volume

Field Type Label Description volume [uint64](#) discount [string](#)

#

## Request

Request defines a standard for request

Field Type Label Description id [string](#) service\_name [string](#) provider [string](#) consumer [string](#) input [string](#) service\_fee [cosmos.base.v1beta1.Coin](#) repeated request\_height [int64](#) expiration\_height [int64](#) request\_context\_id [string](#) request\_context\_batch\_counter [uint64](#)

#

## RequestContext

RequestContext defines a standard for request context

Field Type Label Description service\_name [string](#) providers [string](#) repeated consumer [string](#) input [string](#) service\_fee\_cap [cosmos.base.v1beta1.Coin](#) repeated module\_name [string](#) timeout [int64](#) repeated [bool](#) repeated\_frequency [uint64](#) repeated\_total [int64](#) batch\_counter [uint64](#) batch\_request\_count [uint32](#) batch\_response\_count [uint32](#) batch\_response\_threshold [uint32](#) response\_threshold [uint32](#) batch\_state [RequestContextBatchState](#) state [RequestContextState](#)

#

## Response

Response defines a standard for response

Field Type Label Description provider [string](#) consumer [string](#) result [string](#) output [string](#) request\_context\_id [string](#) request\_context\_batch\_counter [uint64](#)

#

## ServiceBinding

ServiceBinding defines a standard for service binding

Field Type Label Description service\_name [string](#) provider [string](#) deposit [cosmos.base.v1beta1.Coin](#) repeated pricing [string](#) qos [uint64](#) options [string](#) available [bool](#) disabled\_time [google.protobuf.Timestamp](#) owner [string](#)

#

## ServiceDefinition

ServiceDefinition defines a standard for service definition

Field Type Label Description name [string](#) description [string](#) tags [string](#) repeated author [string](#) author\_description [string](#) schemas [string](#) end messages

#

## RequestContextBatchState

RequestContextBatchState is a type alias that represents a request batch status as a byte

Name Number Description BATCH\_RUNNING 0 BATCH\_RUNNING defines the running batch status. BATCH\_COMPLETED 1 BATCH\_COMPLETED defines the completed batch status.

#

## RequestContextState

RequestContextState is a type alias that represents a request status as a byte

Name Number Description RUNNING 0 RUNNING defines the running request context status PAUSED 1 PAUSED defines the paused request context status COMPLETED 2 COMPLETED defines the completed request context status end enum send HasExtensions send services

[Top](#)

#

oracle/genesis.proto

<#>

FeedEntry

Field Type Label Description feed [Feed](#) state [irismod.service.RequestContextState](#) values [FeedValue](#) repeated

<#>

GenesisState

GenesisState defines the oracle module's genesis state

Field Type Label Description entries [FeedEntry](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

oracle/query.proto

<#>

FeedContext

FeedContext defines the feed context struct

Field Type Label Description feed [Feed](#) service\_name [string](#) providers [string](#) repeated input [string](#) timeout [int64](#) service\_fee\_cap [cosmos.base.v1beta1.Coin](#) repeated repeated\_frequency [uint64](#) response\_threshold [uint32](#) state [irismod.service.RequestContextState](#)

<#>

QueryFeedRequest

QueryFeedRequest is request type for the Query/Feed RPC method

Field Type Label Description feed\_name [string](#)

<#>

QueryFeedResponse

QueryFeedResponse is response type for the Query/Feed RPC method

Field Type Label Description feed [FeedContext](#)

<#>

QueryFeedValueRequest

QueryFeedValueRequest is request type for the Query/FeedValue RPC method

Field Type Label Description feed\_name [string](#)

<#>

QueryFeedValueResponse

QueryFeedValueResponse is response type for the Query/FeedValue RPC method

Field Type Label Description feed\_values [FeedValue](#) repeated

<#>

QueryFeedsRequest

QueryFeedsRequest is request type for the Query/Feeds RPC method

Field Type Label Description state [string](#) pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request

<#>

QueryFeedsResponse

QueryFeedsResponse is response type for the Query/Feeds RPC method

Field Type Label Description feeds [FeedContext](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

pagination defines an optional pagination for the request end messagesend enumsend HasExtensions

<#>

Query

Query creates service with guardian as rpc

Method Name	Request Type	Response Type	Description	HTTP Verb	Endpoint	Feed
queries the feed	GET	/irismod/oracle/feeds/{feed_name}	Feeds	<a href="#">QueryFeedsRequest</a>	<a href="#">QueryFeedsResponse</a>	Feeds queries the feed list
GET	/irismod/oracle/feeds	FeedValue	<a href="#">QueryFeedValueRequest</a>	<a href="#">QueryFeedValueResponse</a>	FeedValue queries the feed value	GET
/irismod/oracle/feeds/{feed_name}/values	end services					

[Top](#)

<#>

oracle/tx.proto

<#>

MsgCreateFeed

MsgCreateFeed defines an sdk.Msg type that supports creating a feed

Field	Type	Label	Description
feed_name	<a href="#">string</a>		latest_history <a href="#">uint64</a> description <a href="#">string</a> creator <a href="#">string</a> service_name <a href="#">string</a> providers <a href="#">string</a>
repeated input	<a href="#">string</a>		timeout <a href="#">int64</a> service_fee_cap <a href="#">cosmos.base.v1beta1.Coin</a> repeated repeated_frequency <a href="#">uint64</a> aggregate_func <a href="#">string</a>
value_json_path	<a href="#">string</a>		response_threshold <a href="#">uint32</a>

<#>

MsgCreateFeedResponse

MsgCreateFeedResponse defines the Msg/CreateFeed response type

<#>

MsgEditFeed

MsgEditFeed defines an sdk.Msg type that supports editing a feed

Field	Type	Label	Description
feed_name	<a href="#">string</a>		description <a href="#">string</a> latest_history <a href="#">uint64</a> providers <a href="#">string</a> repeated timeout <a href="#">int64</a>
service_fee_cap	<a href="#">cosmos.base.v1beta1.Coin</a>		repeated repeated_frequency <a href="#">uint64</a> response_threshold <a href="#">uint32</a> creator <a href="#">string</a>

<#>

MsgEditFeedResponse

MsgEditFeedResponse defines the Msg/EditFeed response type

<#>

MsgPauseFeed

MsgPauseFeed defines an sdk.Msg type that supports pausing a feed

Field	Type	Label	Description
feed_name	<a href="#">string</a>		creator <a href="#">string</a>

<#>

MsgPauseFeedResponse

MsgPauseFeedResponse defines the Msg/PauseFeed response type

<#>

MsgStartFeed

MsgPauseFeed defines an sdk.Msg type that supports stating a feed

Field	Type	Label	Description
feed_name	<a href="#">string</a>		creator <a href="#">string</a>

<#>

MsgStartFeedResponse

MsgStartFeedResponse defines the Msg/StartFeed response type

end messagesend enumsend HasExtensions

#

Msg

Msg defines the oracle Msg service

Method Name Request Type Response Type Description HTTP Verb Endpoint CreateFeed [MsgCreateFeed](#) [MsgCreateFeedResponse](#) CreateFeed defines a method for creating a new feed EditFeed [MsgEditFeed](#) [MsgEditFeedResponse](#) EditFeed defines a method for editing a feed StartFeed [MsgStartFeed](#) [MsgStartFeedResponse](#) StartFeed defines a method for starting a feed PauseFeed [MsgPauseFeed](#) [MsgPauseFeedResponse](#) PauseFeed defines a method for pausing a feed end services

[Top](#)

#

random/random.proto

#

Random

Random defines the feed standard

Field Type Label Description request\_tx\_hash [string](#) height [int64](#) value [string](#)

#

Request

Request defines the random request standard

Field Type Label Description height [int64](#) consumer [string](#) tx\_hash [string](#) oracle [bool](#) service\_fee\_cap [cosmos.base.v1beta1.Coin](#) repeated service\_context\_id [string](#) end messagesend enumsend HasExtensionsend services

[Top](#)

#

random/genesis.proto

#

GenesisState

GenesisState defines the random module's genesis state

Field Type Label Description pending\_random\_requests [GenesisState.PendingRandomRequestsEntry](#) repeated

#

GenesisState.PendingRandomRequestsEntry

Field Type Label Description key [string](#) value [Requests](#)

#

Requests

Requests defines the random requests

Field Type Label Description requests [Request](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

#

random/query.proto

#

QueryRandomRequest

QueryRandomRequest is request type for the Query/Random RPC method

Field Type Label Description req\_id [string](#)



## #

QueryRandomRequestQueueRequest

QueryRandomRequestQueueRequest is request type for the Query/RandomRequestQueue RPC method

Field Type Label Description height [int64](#)

## #

QueryRandomRequestQueueResponse

QueryRandomRequestQueueResponse is response type for the Query/RandomRequestQueue RPC method

Field Type Label Description requests [Request](#) repeated

## #

QueryRandomResponse

QueryParametersResponse is response type for the Query/Random RPC method

Field Type Label Description random [Random](#) end messagesend enumsend HasExtensions

## #

Query

Query creates service with guardian as rpc

Method Name Request Type Response Type Description HTTP Verb Endpoint Random [QueryRandomRequest](#) [QueryRandomResponse](#) Random queries the random result GET /irismod/random/randoms/{req\_id} RandomRequestQueue [QueryRandomRequestQueueRequest](#) [QueryRandomRequestQueueResponse](#) RandomRequestQueue queries the random request queue GET /irismod/random/queue end services

[Top](#)

## #

random/tx.proto

## #

MsgRequestRandom

MsgRequestRandom defines an sdk.Msg type that supports requesting a random number

Field Type Label Description block\_interval [uint64](#) consumer [string](#) oracle [bool](#) service\_fee\_cap [cosmos.base.v1beta1.Coin](#) repeated

## #

MsgRequestRandomResponse

MsgRequestRandomResponse defines the Msg/RequestRandom response type

end messagesend enumsend HasExtensions

## #

Msg

Msg defines the oracle Msg service

Method Name Request Type Response Type Description HTTP Verb Endpoint RequestRandom [MsgRequestRandom](#) [MsgRequestRandomResponse](#) RequestRandom defines a method for requesting a new random number end services

[Top](#)

## #

record/record.proto

## #

Content

Content defines the detailed information for a record

Field Type Label Description digest [string](#) digest\_algo [string](#) uri [string](#) meta [string](#)

<#>

Record

Record defines the record standard

Field Type Label Description tx\_hash [string](#) contents [Content](#) repeated creator [string](#) end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

record/genesis.proto

<#>

GenesisState

GenesisState defines the record module's genesis state

Field Type Label Description records [Record](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

record/query.proto

<#>

QueryRecordRequest

QueryRecordRequest is the request type for the Query/Record RPC method

Field Type Label Description record\_id [string](#)

<#>

QueryRecordResponse

QueryRecordResponse is the response type for the Query/Record RPC method

Field Type Label Description record [Record](#) end messagesend enumsend HasExtensions

<#>

Query

Query defines the gRPC querier service for record module

Method Name Request Type Response Type Description HTTP Verb Endpoint Record [QueryRecordRequest](#) [QueryRecordResponse](#)  
Record queries the record by the given record ID GET /irismod/record/records/{record\_id} end services

[Top](#)

<#>

record/tx.proto

<#>

MsgCreateRecord

MsgCreateRecord defines an SDK message for creating a new record

Field Type Label Description contents [Content](#) repeated creator [string](#)

<#>

MsgCreateRecordResponse

MsgCreateRecordResponse defines the Msg/CreateRecord response type

Field Type Label Description id [string](#) end messagesend enumsend HasExtensions

<#>

Msg

Msg defines the oracle Msg service

Method Name Request Type Response Type Description HTTP Verb Endpoint CreateRecord [MsgCreateRecord](#)  
[MsgCreateRecordResponse](#) CreateRecord defines a method for creating a new record end services

[Top](#)

<#>

service/genesis.proto

<#>

GenesisState

GenesisState defines the service module's genesis state

Field Type Label Description params [Params](#) definitions [ServiceDefinition](#) repeated bindings [ServiceBinding](#) repeated withdraw\_addresses  
[GenesisState.WithdrawAddressesEntry](#) repeated request\_contexts [GenesisState.RequestContextsEntry](#) repeated

<#>

GenesisState.RequestContextsEntry

Field Type Label Description key [string](#) value [RequestContext](#)

<#>

GenesisState.WithdrawAddressesEntry

Field Type Label Description key [string](#) value [string](#) end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

service/query.proto

<#>

QueryBindingRequest

QueryBindingRequest is request type for the Query/Binding RPC method

Field Type Label Description service\_name [string](#) provider [string](#)

<#>

QueryBindingResponse

QueryDefinitionResponse is response type for the Query/Binding RPC method

Field Type Label Description service\_binding [ServiceBinding](#)

<#>

QueryBindingsRequest

QueryBindingsRequest is request type for the Query/Bindings RPC method

Field Type Label Description service\_name [string](#) owner [string](#) pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request

<#>

QueryBindingsResponse

QueryDefinitionsResponse is response type for the Query/Bindings RPC method

Field Type Label Description service\_bindings [ServiceBinding](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

<#>

QueryDefinitionRequest

QueryDefinitionRequest is request type for the Query/Definition RPC method

Field Type Label Description service\_name [string](#)

#

QueryDefinitionResponse

QueryDefinitionResponse is response type for the Query/Definition RPC method

Field Type Label Description service\_definition [ServiceDefinition](#)

#

QueryEarnedFeesRequest

QueryEarnedFeesRequest is request type for the Query/EarnedFees RPC method

Field Type Label Description provider [string](#)

#

QueryEarnedFeesResponse

QueryEarnedFeesResponse is response type for the Query/EarnedFees RPC method

Field Type Label Description fees [cosmos.base.v1beta1.Coin](#) repeated

#

QueryParamsRequest

QueryParametersRequest is request type for the Query/Parameters RPC method

#

QueryParamsResponse

QueryParametersResponse is response type for the Query/Parameters RPC method

Field Type Label Description params [Params](#) res [cosmos.base.query.v1beta1.PageResponse](#)

#

QueryRequestContextRequest

QueryRequestContextRequest is request type for the Query/RequestContext RPC method

Field Type Label Description request\_context\_id [string](#)

#

QueryRequestContextResponse

QueryRequestContextResponse is response type for the Query/RequestContext RPC method

Field Type Label Description request\_context [RequestContext](#)

#

QueryRequestRequest

QueryRequestRequest is request type for the Query/Request RPC method

Field Type Label Description request\_id [string](#)

#

QueryRequestResponse

QueryRequestResponse is response type for the Query/Request RPC method

Field Type Label Description request [Request](#)

#

QueryRequestsByReqCtxRequest

QueryRequestsByReqCtxRequest is request type for the Query/RequestsByReqCtx RPC method

Field Type Label Description request\_context\_id [string](#) batch\_counter [uint64](#) pagination [cosmos.base.query.v1beta1.PageRequest](#)

#

QueryRequestsByReqCtxResponse

QueryRequestsByReqCtxResponse is response type for the Query/RequestsByReqCtx RPC method

Field Type Label Description requests [Request](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

#

QueryRequestsRequest

QueryRequestsRequest is request type for the Query/Requests RPC method

Field Type Label Description service\_name [string](#) provider [string](#) pagination [cosmos.base.query.v1beta1.PageRequest](#)

#

QueryRequestsResponse

QueryRequestsResponse is response type for the Query/Requests RPC method

Field Type Label Description requests [Request](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

#

QueryResponseRequest

QueryResponseRequest is request type for the Query/Response RPC method

Field Type Label Description request\_id [string](#)

#

QueryResponseResponse

QueryResponseResponse is response type for the Query/Response RPC method

Field Type Label Description response [Response](#)

#

QueryResponsesRequest

QueryResponsesRequest is request type for the Query/Responses RPC method

Field Type Label Description request\_context\_id [string](#) batch\_counter [uint64](#) pagination [cosmos.base.query.v1beta1.PageRequest](#)

#

QueryResponsesResponse

QueryResponsesResponse is response type for the Query/Responses RPC method

Field Type Label Description responses [Response](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

#

QuerySchemaRequest

QuerySchemaRequest is request type for the Query/Schema RPC method

Field Type Label Description schema\_name [string](#)

#

QuerySchemaResponse

QuerySchemaResponse is response type for the Query/Schema RPC method

Field Type Label Description schema [string](#)

#

QueryWithdrawAddressRequest

QueryWithdrawAddressRequest is request type for the Query/WithdrawAddress RPC method

Field Type Label Description owner [string](#)

#

QueryWithdrawAddressResponse

QueryWithdrawAddressResponse is response type for the Query/WithdrawAddress RPC method

Field Type Label Description withdraw\_address [string](#) end messagesend enumsend HasExtensions

#

Query

Query creates service with iservice as rpc

Method Name Request Type Response Type Description HTTP Verb Endpoint Definition [QueryDefinitionRequest](#)  
[QueryDefinitionResponse](#) Definition returns service definition GET /irismod/service/definitions/{service\_name} Binding  
[QueryBindingRequest](#) [QueryBindingResponse](#) Binding returns service Binding with service name and provider GET  
/irismod/service/bindings/{service\_name}/{provider} Bindings [QueryBindingsRequest](#) [QueryBindingsResponse](#) Bindings returns all service  
Bindings with service name and owner GET /irismod/service/bindings/{service\_name} WithdrawAddress [QueryWithdrawAddressRequest](#)  
[QueryWithdrawAddressResponse](#) WithdrawAddress returns the withdraw address of the binding owner GET  
/irismod/service/owners/{owner}/withdraw-address RequestContext [QueryRequestContextRequest](#) [QueryRequestContextResponse](#)  
RequestContext returns the request context GET /irismod/service/context/{request\_context\_id} Request [QueryRequestRequest](#)  
[QueryRequestResponse](#) Request returns the request GET /irismod/service/requests/{request\_id} Requests [QueryRequestsRequest](#)  
[QueryRequestsResponse](#) Request returns all requests of one service with provider GET  
/irismod/service/requests/{service\_name}/{provider} RequestsByReqCtx [QueryRequestsByReqCtxRequest](#)  
[QueryRequestsByReqCtxResponse](#) RequestsByReqCtx returns all requests of one service call batch GET  
/irismod/service/requests/{request\_context\_id}/{batch\_counter} Response [QueryResponseRequest](#) [QueryResponseResponse](#) Response  
returns the response of request GET /irismod/service/responses/{request\_id} Responses [QueryResponsesRequest](#)  
[QueryResponsesResponse](#) Responses returns all responses of one service call batch GET  
/irismod/service/responses/{request\_context\_id}/{batch\_counter} EarnedFees [QueryEarnedFeesRequest](#) [QueryEarnedFeesResponse](#)  
EarnedFees returns the earned service fee of one provider GET /irismod/service/fees/{provider} Schema [QuerySchemaRequest](#)  
[QuerySchemaResponse](#) Schema returns the schema GET /irismod/service/schemas/{schema\_name} Params [QueryParamsRequest](#)  
[QueryParamsResponse](#) Params queries the service parameters GET /irismod/service/params end services

[Top](#)

#

service/tx.proto

#

MsgBindService

MsgBindService defines an SDK message for binding to an existing service

Field Type Label Description service\_name [string](#) provider [string](#) deposit [cosmos.base.v1beta1.Coin](#) repeated pricing [string](#) qos [uint64](#)  
options [string](#) owner [string](#)

#

MsgBindServiceResponse

MsgBindServiceResponse defines the Msg/BindService response type

#

MsgCallService

MsgCallService defines an SDK message to initiate a service request context

Field Type Label Description service\_name [string](#) providers [string](#) repeated consumer [string](#) input [string](#) service\_fee\_cap  
[cosmos.base.v1beta1.Coin](#) repeated timeout [int64](#) repeated [bool](#) repeated\_frequency [uint64](#) repeated\_total [int64](#)

#

MsgCallServiceResponse

MsgCallServiceResponse defines the Msg/CallService response type

Field Type Label Description request\_context\_id [string](#)

#

MsgDefineService

MsgDefineService defines an SDK message for defining a new service

Field Type Label Description name [string](#) description [string](#) tags [string](#) repeated author [string](#) author\_description [string](#) schemas [string](#)

#

MsgDefineServiceResponse

MsgDefineServiceResponse defines the Msg/DefineService response type

#

MsgDisableServiceBinding

MsgDisableServiceBinding defines an SDK message to disable a service binding

Field Type Label Description service\_name [string](#) provider [string](#) owner [string](#)

#

MsgDisableServiceBindingResponse

MsgDisableServiceBindingResponse defines the Msg/DisableServiceBinding response type

#

MsgEnableServiceBinding

MsgEnableServiceBinding defines an SDK message to enable a service binding

Field Type Label Description service\_name [string](#) provider [string](#) deposit [cosmos.base.v1beta1.Coin](#) repeated owner [string](#)

#

MsgEnableServiceBindingResponse

MsgEnableServiceBindingResponse defines the Msg/EnableServiceBinding response type

#

MsgKillRequestContext

MsgKillRequestContext defines an SDK message to terminate a service request

Field Type Label Description request\_context\_id [string](#) consumer [string](#)

#

MsgKillRequestContextResponse

MsgKillRequestContextResponse defines the Msg/KillRequestContext response type

#

MsgPauseRequestContext

MsgPauseRequestContext defines an SDK message to pause a service request

Field Type Label Description request\_context\_id [string](#) consumer [string](#)

#

MsgPauseRequestContextResponse

MsgPauseRequestContextResponse defines the Msg/PauseRequestContext response type

#

MsgRefundServiceDeposit

MsgRefundServiceDeposit defines an SDK message to refund deposit from a service binding

Field Type Label Description service\_name [string](#) provider [string](#) owner [string](#)

#

MsgRefundServiceDepositResponse

MsgRefundServiceDepositResponse defines the Msg/RefundServiceDeposit response type

#

MsgRespondService

MsgRespondService defines an SDK message to respond a service request

Field Type Label Description request\_id [string](#) provider [string](#) result [string](#) output [string](#)

#

MsgRespondServiceResponse

MsgRespondServiceResponse defines the Msg/RespondService response type

#

MsgSetWithdrawAddress

MsgSetWithdrawAddress defines an SDK message to set the withdrawal address for a provider

Field Type Label Description owner [string](#) withdraw\_address [string](#)

#

MsgSetWithdrawAddressResponse

MsgSetWithdrawAddressResponse defines the Msg/SetWithdrawAddress response type

#

MsgStartRequestContext

MsgStartRequestContext defines an SDK message to resume a service request

Field Type Label Description request\_context\_id [string](#) consumer [string](#)

#

MsgStartRequestContextResponse

MsgStartRequestContextResponse defines the Msg/StartRequestContext response type

#

MsgUpdateRequestContext

MsgUpdateRequestContext defines an SDK message to update a service request context

Field Type Label Description request\_context\_id [string](#) providers [string](#) repeated consumer [string](#) service\_fee\_cap [cosmos.base.v1beta1.Coin](#) repeated timeout [int64](#) repeated\_frequency [uint64](#) repeated\_total [int64](#)

#

MsgUpdateRequestContextResponse

MsgUpdateRequestContextResponse defines the Msg/UpdateRequestContext response type

#

MsgUpdateServiceBinding

MsgUpdateServiceBinding defines an SDK message for updating an existing service binding

Field Type Label Description service\_name [string](#) provider [string](#) deposit [cosmos.base.v1beta1.Coin](#) repeated pricing [string](#) qos [uint64](#) options [string](#) owner [string](#)

#

MsgUpdateServiceBindingResponse

MsgUpdateServiceBindingResponse defines the Msg/UpdateServiceBinding response type



## #

MsgWithdrawEarnedFees

MsgWithdrawEarnedFees defines an SDK message to withdraw the fees earned by the provider or owner

Field Type Label Description owner [string](#) provider [string](#)

## #

MsgWithdrawEarnedFeesResponse

MsgWithdrawEarnedFeesResponse defines the Msg/WithdrawEarnedFees response type

end messagesend enumsend HasExtensions

## #

Msg

Msg defines the oracle Msg service

Method Name Request Type Response Type Description HTTP Verb Endpoint DefineService [MsgDefineService](#) [MsgDefineServiceResponse](#) DefineService defines a method for define a new service BindService [MsgBindService](#) [MsgBindServiceResponse](#) BindService defines a method for bind a server UpdateServiceBinding [MsgUpdateServiceBinding](#) [MsgUpdateServiceBindingResponse](#) UpdateServiceBinding defines a method for update a service binding SetWithdrawAddress [MsgSetWithdrawAddress](#) [MsgSetWithdrawAddressResponse](#) SetWithdrawAddress defines a method for setting a withdraw address EnableServiceBinding [MsgEnableServiceBinding](#) [MsgEnableServiceBindingResponse](#) EnableServiceBinding defines a method for enabling a service binding DisableServiceBinding [MsgDisableServiceBinding](#) [MsgDisableServiceBindingResponse](#) DisableServiceBinding defines a method for disabling a service binding RefundServiceDeposit [MsgRefundServiceDeposit](#) [MsgRefundServiceDepositResponse](#) RefundServiceDeposit defines a method for refunding a fee CallService [MsgCallService](#) [MsgCallServiceResponse](#) CallService defines a method for calling a service RespondService [MsgRespondService](#) [MsgRespondServiceResponse](#) RespondService defines a method for responding a service PauseRequestContext [MsgPauseRequestContext](#) [MsgPauseRequestContextResponse](#) PauseRequestContext defines a method for pausing a service call StartRequestContext [MsgStartRequestContext](#) [MsgStartRequestContextResponse](#) StartRequestContext defines a method for starting a service call KillRequestContext [MsgKillRequestContext](#) [MsgKillRequestContextResponse](#) KillRequestContext defines a method for killing a service call UpdateRequestContext [MsgUpdateRequestContext](#) [MsgUpdateRequestContextResponse](#) UpdateRequestContext defines a method for updating a service call WithdrawEarnedFees [MsgWithdrawEarnedFees](#) [MsgWithdrawEarnedFeesResponse](#) WithdrawEarnedFees defines a method for Withdrawing a earned fees end services

[Top](#)

## #

token/token.proto

## #

Params

Params defines token module's parameters

Field Type Label Description token\_tax\_rate [string](#) issue\_token\_base\_fee [cosmos.base.v1beta1.Coin](#) mint\_token\_fee\_ratio [string](#)

## #

Token

Token defines a standard for the fungible token

Field Type Label Description symbol [string](#) name [string](#) scale [uint32](#) min\_unit [string](#) initial\_supply [uint64](#) max\_supply [uint64](#) mintable [bool](#) owner [string](#) end messagesend enumsend HasExtensionsend services

[Top](#)

## #

token/genesis.proto

## #

GenesisState

GenesisState defines the token module's genesis state

Field Type Label Description params [Params](#) tokens [Token](#) repeated burned\_coins [cosmos.base.v1beta1.Coin](#) repeated end messagesend enumsend HasExtensionsend services

[Top](#)

<#>

token/query.proto

<#>

QueryFeesRequest

QueryFeesRequest is request type for the Query/Fees RPC method

Field Type Label Description symbol [string](#)

<#>

QueryFeesResponse

QueryFeesResponse is response type for the Query/Fees RPC method

Field Type Label Description exist [bool](#) issue\_fee [cosmos.base.v1beta1.Coin](#) mint\_fee [cosmos.base.v1beta1.Coin](#)

<#>

QueryParamsRequest

QueryParametersRequest is request type for the Query/Parameters RPC method

<#>

QueryParamsResponse

QueryParametersResponse is response type for the Query/Parameters RPC method

Field Type Label Description params [Params](#) res [cosmos.base.query.v1beta1.PageResponse](#)

<#>

QueryTokenRequest

QueryTokenRequest is request type for the Query/Token RPC method

Field Type Label Description denom [string](#)

<#>

QueryTokenResponse

QueryTokenResponse is response type for the Query/Token RPC method

Field Type Label Description Token [google.protobuf.Any](#)

<#>

QueryTokensRequest

QueryTokensRequest is request type for the Query/Tokens RPC method

Field Type Label Description owner [string](#) pagination [cosmos.base.query.v1beta1.PageRequest](#)

pagination defines an optional pagination for the request.

<#>

QueryTokensResponse

QueryTokensResponse is response type for the Query/Tokens RPC method

Field Type Label Description Tokens [google.protobuf.Any](#) repeated pagination [cosmos.base.query.v1beta1.PageResponse](#)

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QueryTotalBurnRequest

QueryTokenRequest is request type for the Query/TotalBurn RPC method

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## QueryTotalBurnResponse

QueryTotalBurnResponse is response type for the Query/TotalBurn RPC method

Field Type Label Description burned\_coins [cosmos.base.v1beta1.Coin](#) repeated end messagesend enumsend HasExtensions

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## Query

Query creates service with token as RPC

Method Name Request Type Response Type Description HTTP Verb Endpoint Token [QueryTokenRequest](#) [QueryTokenResponse](#) Token returns token with token name GET /irismod/token/tokens/{denom} Tokens [QueryTokensRequest](#) [QueryTokensResponse](#) Tokens returns the token list GET /irismod/token/tokens Fees [QueryFeesRequest](#) [QueryFeesResponse](#) Fees returns the fees to issue or mint a token GET /irismod/token/tokens/{symbol}/fees Params [QueryParamsRequest](#) [QueryParamsResponse](#) Params queries the token parameters GET /irismod/token/params TotalBurn [QueryTotalBurnRequest](#) [QueryTotalBurnResponse](#) TotalBurn queries all the burnt coins GET /irismod/token/total\_burn end services

[Top](#)

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token/tx.proto

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## MsgBurnToken

MsgBurnToken defines an SDK message for burning some tokens

Field Type Label Description symbol [string](#) amount [uint64](#) sender [string](#)

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## MsgBurnTokenResponse

MsgBurnTokenResponse defines the Msg/BurnToken response type

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## MsgEditToken

MsgEditToken defines an SDK message for editing a new token

Field Type Label Description symbol [string](#) name [string](#) max\_supply [uint64](#) mintable [string](#) owner [string](#)

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## MsgEditTokenResponse

MsgEditTokenResponse defines the Msg/EditToken response type

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## MsgIssueToken

MsgIssueToken defines an SDK message for issuing a new token

Field Type Label Description symbol [string](#) name [string](#) scale [uint32](#) min\_unit [string](#) initial\_supply [uint64](#) max\_supply [uint64](#) mintable [bool](#) owner [string](#)

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## MsgIssueTokenResponse

MsgIssueTokenResponse defines the Msg/IssueToken response type

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## MsgMintToken

MsgMintToken defines an SDK message for minting a new token

Field Type Label Description symbol [string](#) amount [uint64](#) to [string](#) owner [string](#)

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MsgMintTokenResponse

MsgMintTokenResponse defines the Msg/MintToken response type

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MsgTransferTokenOwner

MsgTransferTokenOwner defines an SDK message for transferring the token owner

Field Type Label Description src\_owner [string](#) dst\_owner [string](#) symbol [string](#)

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MsgTransferTokenOwnerResponse

MsgTransferTokenOwnerResponse defines the Msg/TransferTokenOwner response type

end messagesend enumsend HasExtensions

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Msg

Msg defines the oracle Msg service

Method Name Request Type Response Type Description HTTP Verb Endpoint IssueToken [MsgIssueToken](#) [MsgIssueTokenResponse](#) IssueToken defines a method for issuing a new token EditToken [MsgEditToken](#) [MsgEditTokenResponse](#) EditToken defines a method for editing a token MintToken [MsgMintToken](#) [MsgMintTokenResponse](#) MintToken defines a method for minting some tokens BurnToken [MsgBurnToken](#) [MsgBurnTokenResponse](#) BurnToken defines a method for burning some tokens TransferTokenOwner [MsgTransferTokenOwner](#) [MsgTransferTokenOwnerResponse](#) TransferTokenOwner defines a method for minting some tokens end services

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Scalar Value Types

.proto Type Notes C++ Java Python Go C# PHP Rubydouble

double double float float64 double float Floatfloat

float float float float32 float float Floatint32 Uses variable-length encoding. Inefficient for encoding negative numbers – if your field is likely to have negative values, use sint32 instead. int32 int int int32 int integer Bignum or Fixnum (as required) int64 Uses variable-length encoding. Inefficient for encoding negative numbers – if your field is likely to have negative values, use sint64 instead. int64 long int/long int64 long integer/string Bignum uint32 Uses variable-length encoding. uint32 int int/long uint32 uint integer Bignum or Fixnum (as required) uint64 Uses variable-length encoding. uint64 long int/long uint64 ulong integer/string Bignum or Fixnum (as required) sint32 Uses variable-length encoding. Signed int value. These more efficiently encode negative numbers than regular int32s. int32 int int int32 int integer Bignum or Fixnum (as required) sint64 Uses variable-length encoding. Signed int value. These more efficiently encode negative numbers than regular int64s. int64 long int/long int64 long integer/string Bignum fixed32 Always four bytes. More efficient than uint32 if values are often greater than 2<sup>28</sup>. uint32 int int uint32 uint integer Bignum or Fixnum (as required) fixed64 Always eight bytes. More efficient than uint64 if values are often greater than 2<sup>56</sup>. uint64 long int/long uint64 ulong integer/string Bignum sfixed32 Always four bytes. int32 int int int32 int integer Bignum or Fixnum (as required) sfixed64 Always eight bytes. int64 long int/long int64 long integer/string Bignum bool

bool boolean boolean bool bool boolean TrueClass/FalseClassstring A string must always contain UTF-8 encoded or 7-bit ASCII text. string String str/unicode string string string String (UTF-8) bytes May contain any arbitrary sequence of bytes. string ByteString str []byte ByteString string String (ASCII-8BIT)