

# Kava 5.1 Upgrade Proposal

Kava Labs

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## Overview

This proposal is intended to signal acceptance/rejection of the software that will contain the changes to be included in the kava-5.1 relaunch. This proposal replaces the previous kava-5.1 upgrade proposal.

## Key Dates

1. We propose that the final block of kava-6 occur on March 31st, 2021 at 13:00 UTC
2. We propose that the genesis time of kava-5.1 occur on March 31st, 2021 at 15:00 UTC

## Software Version

We propose that the software release marked v0.14.0, or the most recent minor release on the v0.14 branch (v0.14.1, for example), be the software for kava-5.1. Note that at the time of writing v0.14.0 has not been released, but a release candidate can be reviewed. If v0.14.0 is not released by March 27th, 2021 at 15:00 UTC, this proposal should be considered invalid and a proposal to supersede this proposal will be submitted.

## Development - key features and milestones

The version of Golang for kava-5.1 will remain v1.13+. Golang v1.15+ has been tested and is recommended.

The version of Cosmos-sdk for kava-5.1 will remain v0.39.x - there are no known changes necessary to support kava-5 from a transaction signing/parsing perspective.

The version of Tendermint for kava-5.1 will be v0.33.x. This is the same major version as kava-6.

The following development milestones have been completed or will be completed by the noted date:

- Kava-5.1 feature freeze - complete. If the code becomes unfrozen, a proposal will be submitted to supersede this proposal.
- Kava-5.1 migration - complete. The migration guide can be viewed at [https://github.com/Kava-Labs/kava/blob/master/migrate/v0\\_14/migrate.md](https://github.com/Kava-Labs/kava/blob/master/migrate/v0_14/migrate.md)
- Kava-5 external audit - in progress. We are continuously working with external auditors to verify the security and correctness of the Kava codebase. All code has been sufficiently reviewed to be ready for release, and any completed audit reports will be released after issues are addressed.

## Parameter and Governance Changes

### CDP

CDP Collateral Parameters have been updated to include a `KeeperRewardPercentage` parameter - this is the percentage reward an external keeper will receive for sending a `MsgLiquidate` that successfully liquidates an unsafe CDP. The initial value for all collateral types will be 1%.

CDP Collateral Parameters have been updated to include a `CheckCollateralizationIndexCount` parameter - this is the number of CDPs that are checked for possible liquidation in the begin blocker. The initial value for all collateral types will be 10.

The rationale for these changes was to address issues with `BeginBlocker` computations taking too long and causing validators to miss blocks.

### Pricefeed

The following markets are proposed to be added to the pricefeed

- `UXSD:USD` - this will introduce an active pricefeed for USDX. Note that this pricefeed only interacts with HARD protocol money markets. At launch, USDX will not be an eligible collateral for *borrow* in HARD protocol (ie. users can supply USDX but it won't increase the amount that they can borrow). After launch, when we are confident in the USDX pricefeed's function, we will gradually add USDX as an eligible collateral for borrow.

Oracles will need to perform a minor upgrade to their oracle software prior to launch.

### BEP3

BEP3 swap timeouts are changing:

- `MinBlockLock`: 24686
- `MaxBlockLock`: 86400

The rationale for these changes was to address double spend risk for atomic swaps.

All BEP3 cross-chain swaps will be via the Binance deputy process

### Hard

HARD money market protocol will be included in kava-5. HARD Protocol allows users to supply and borrow any supported asset, with autonomous interest rates. For complete information, see the [HARD protocol spec](#)

The money markets supported by HARD protocol at launch are:

- BNB
- BTCB
- BUSD
- HARD
- KAVA
- USDX
- XRPB

At launch, only BUSD will be eligible for borrow. Shortly after launch, when we are confident the protocol is functioning correctly, we will gradually raise borrow limits via governance.

## Incentives

HARD protocol incentives have been moved to the `incentive` module. The actual HARD rewards remain unchanged from what has been specified by governance.

## Committee

With the launch of HARD protocol borrowing, the Kava stability committee will be delegated governance of the following HARD protocol parameters:

- Interest Rate Model
- Borrow Limit
- Reserve Factor
- Keeper Reward Percentage

With the introduction of the hybrid liquidation protocol for CDPs, the Kava stability committee will be delegated governance of the following, additional CDP Collateral Parameters:

- Keeper Reward Percentage
- Check Collateralization Index Count

## Kava-5.1 Pre-release Testnets

Kava-testnet-12000 is a publicly available testnet to test validation and external integrations for kava-5.1. Publicly available REST and RPC endpoints are:

Pruning nodes: Rest: <https://api.testnet-12000.kava.io>

RPC: <https://rpc.testnet-12000.kava.io>

Archive nodes:

Rest: <https://api.data-testnet-12000.kava.io>

RPC: <https://rpc.data-testnet-12000.kava.io>

Block Explorer: <https://testnet.mintscan.io/kava-testnet>

## Fallback

In the event the kava-5.1 upgrade does NOT complete by March 31st, 2021 at 17:00UTC, nodes should revert back to the final kava-6 state and resume block production on kava-6. Note that the migration should still be considered successful if the kava-5.1 network has launched, but is waiting for sufficient validator power to produce blocks. If an upgrade failure occurs, coordination will occur in the [Kava discord channel](#).