

Staking on the MultiversX Blockchain

What is a Blockchain

A blockchain is a decentralized, distributed and public digital ledger that is used to record transactions across many computers so that the record cannot be altered retroactively without the alteration of all subsequent blocks and the consensus of the network.

It is basically an application (called node) which is running on multiple computers that form the blockchain's network. When new data is added to the network, the majority of nodes must verify and confirm the legitimacy of the new data. When a consensus is reached, a new block is created and attached to the chain. A node(s) runner is called a validator.

What is MultiversX

MultiversX is a PoS (proof of stake) blockchain. This means the protocol provides validators with incentives to validate transactions by rewarding them for every correct validation. In return, as a safeguard against fraud, the protocol requires the validators to stake some of their coins as collateral. The native coin of MvX is named EGLD.

What is a Smart Contract (SC)

Smart contracts are software programs stored on a blockchain that run when predetermined conditions are met. They typically are used to automate the execution of an agreement so that all participants can be immediately certain of the outcome, without any intermediary's involvement.

What is a Staking Provider (SP)

Average users do not possess technical knowledge to run a node. In order for them to benefit from the rewards offered by the network for validating the transactions, they can choose to delegate their EGLD to a SP, which is a specialized entity that runs nodes on their behalf and is responsible for the nodes' up-time, for running the latest software version, for maintaining the servers on which the nodes are running, and all the hassle that comes with it. In return, the SP charges a fee for its service. This service is offered through a SC. There are currently over 400 SPs on the MvX network, running in total 3200 nodes.

Who is Staking Agency

We've been supporting the MvX network since its inception. We run **183 nodes**, with **774,000 EGLD** delegated by 16,850 users. Our servers had 0 down-time throughout the years. Currently we have a service fee of 15%, providing our delegators an APR of 7.17% from the total of 8.43% earned by our nodes. How does it work? You stake (delegate) EGLD in our SC and you earn a daily reward. For example, if you delegate 100 EGLD, you receive an average of $100 \times 7.17\% / 365 = 0.01965$ EGLD each day. After 1 year, you have earned 7.17 EGLD. If you decide to remove (undelegate) your stake, you send the request to the SC, and after 10 days of unbonding time, you can withdraw your stake. This is enforced by the protocol as a security measure.

What is Liquid Staking (LS)

Upon staking, the protocol programmatically mints a liquid token and sends it to the user as a receipt for his stake. This token can be transferred, stored, traded or utilized in different DeFi (decentralized finance) applications. On MvX there are a few LS protocols, each one with different features and advantages: VestaX Finance, SALSA, Hatom and JewelSwap.

What is SALSA

SALSA (Staking Agency's Liquid Staking Algorithm) is one of the most profitable, secure and versatile liquid staking protocols on the MvX network. It is basically a SC that acts as an intermediary between Staking Agency and you. The liquid token of SALSA is named LEGLD (Liquid EGLD).

How does it work ?

You send EGLD to the SC and you receive in return the equivalent in LEGLD tokens, then SALSA delegates the EGLD with SA.

Right now SALSA has **18,572 staked EGLD** and 18,196 minted LEGLD, which means
 $1 \text{ LEGLD} = 18,572 / 18,196 = 1,02066 \text{ EGLD}$.

For example, if you send 100 EGLD to SALSA, you will receive **97.97545 LEGLD**

From SA's perspective, SALSA is its delegator, not you, so all the daily rewards are earned by SALSA, which in turn re-delegates them with SA, increasing its stake, therefore LEGLD's price vs EGLD increases as its price formula is $\text{EGLD_Stake} / \text{LEGLD_Supply}$. This is called autocompounding. So if you simply hold LEGLD in your wallet, its EGLD value increases on a daily basis with an equivalent **APR of 7.43%**.

SALSA's Basic Functionalities

Delegate

- You send EGLD to SALSA
- SALSA delegates your EGLD with SA
- SALSA mints an equivalent amount of LEGLD tokens and sends them to you

Withdraw

- You receive the unbounded EGLD from SALSA

unDelegate

- You send LEGLD to SALSA
- SALSA burns the LEGLD (takes them out of circulation)
- SALSA undelegates the equivalent amount of EGLD from SA, thus initiating the 10 days unbonding process (if there is an arbitrage opportunity you will receive the undelegated amount instantly - total or partial)

SALSA's Reserves Mechanism

unDelegate Now

- You send LEGLD to SALSA
- You receive instantly the equivalent in EGLD minus a fee, if enough reserve is available
- SALSA undelegates the EGLD amount from SA (fee included)
- After 10 days, SALSA withdraws the unbonded EGLD from SA in order to replenish the reserve

Remove Reserve

- You get back your EGLD plus a proportional amount from the fees collected for each unDelegate Now transaction
- If there is not enough available reserve at the moment of your remove transaction, you receive the entire available amount and for the rest, you will need to wait the remaining unbonding time.
- **Note: The current fee for unDelegate Now is 2%**

Add Reserve

- You send EGLD to SALSA

Example

It may sound complicated, but it's not. In order to clarify the mechanism, I will give you an example and explain in detail everything that happens behind the scene.

15 August

- SALSA's reserve is empty
- You add 90 EGLD to the reserve
- Now SALSA's reserve has 90 EGLD

16 August

- Bob adds 10 EGLD to the reserve
- Now SALSA's reserve has 100 EGLD

17 August

- LEGLD's price is 1.05 EGLD
- Alice uses the unDelegate Now feature and sends 40 LEGLD, so she should receive instantly $40 \times 1.05 = 42$ EGLD minus the 2% fee (0.84 EGLD) -> 41.16 EGLD.
- Now SALSA's available reserve is $100 - 41.16 = 58.84$ EGLD
- SALSA undelegates 42 EGLD from SA, initiating the 10 days unbonding process
- You had 90% of the reserve, so you earned $90\% \times 0.84 = 0.756$ EGLD and now you have 90.756 EGLD in reserve, while Bob earned 0.084 EGLD and now has 10.084 EGLD

20 August

- You withdraw your entire reserve of 90.756 EGLD
- SALSA only has 58.84 available, so you will receive those and the 31.916 EGLD remaining will transform in your undelegation for which you still have to wait 7 days
- SALSA now has an undelegation of $42 - 31.916 = 10.084$ EGLD
- The reserve is empty

27 August

- SALSA withdraws the unbonded 10.084 EGLD from SA
- The reserve is replenished and now has 10.084 EGLD
- You withdraw your unbonded 31.916 EGLD and now you have $58.84 + 31.916 = 90.756$ EGLD in your wallet

SALSA's Custody

With the v2 version of the SC, we introduced the concept of custodial liquid delegation. The difference between normal and custodial delegation is that when you delegate, you have the option to tell SALSA to keep the minted LEGLD in its safe custody and not send it to your wallet.

Doing so, you can protect your custodial stake by activating the Knights and Heirs features, and not worry anymore if you leak your seedphrase or simply lose access to your wallet.

- **Add to custody** - transfer LEGLD from your wallet to SALSA's custody
- **Remove from custody** - transfer LEGLD from SALSA's custody to your wallet

SALSA's Knights Feature

This is a security feature we implemented as an attempt to protect our users from thieves. Unfortunately, lots of people in the crypto space lose their funds either by leaking their seed phrases, or by getting hacked. Transactions on blockchains are irreversible so there isn't much that can be done in such an event.

There are a few simple rules you should follow:

- never give your seed phrase to ANYONE since those words are your money
- never take screenshots of your seed phrase
- never connect to public WiFi hotspots (hotels, restaurants, etc.)



Each of us has a friend that is "good with computers". If that person is trustworthy and shares the passion for blockchains as you do, you can ask him to be your Knight.

How does it work ? Here are the functions you can access:

set knight

- send the public address of your friend's wallet
- your knight status is now : pending confirmation
- you lose access to unDelegateNow and removeFromCustody features

cancel knight - you can relieve your knight from his duties only if:

- status is pending confirmation
- you have no LEGLD in custody, no EGLD in reserve and no unbonding EGLD

activate knight

- only possible if the status is inactive (knight has confirmed)
- you transfer the access to all SALSA's features to your knight
- the knight is empowered to do the following actions on your behalf: undelegate, undelegate now, remove reserve, withdraw
- now your knight has all your funds, so you should create a new wallet and ask your friend to transfer the funds to this new wallet

These are your knight's functions:

- **confirm knight** - if you've just set your knight, he must confirm your request, and then your knight's status will become inactive
- **remove knight** - your knight can resign from his duties at any time (note: a wallet address can not be knight for more than 10 users)
- **deactivate knight** - in case you accidentally activate your knight, he can deactivate himself
- **unDelegate knight** - the knight can undelegate your funds if activated [if there is an arbitrage opportunity you will receive the undelegated amount instantly (total or partial)]
- **unDelegate Now knight** - the knight can unDelegate Now your funds if activated
- **remove reserve knight** - the knight can remove your reserve if activated
- **withdraw knight** - the knight can withdraw your unbonded EGLD if activated

Note: the knight protects only your funds from SALSA's SC. If you leak your seed phrase and you have funds in your wallet (including LEGLD), the thief can transfer them immediately. He can even remove your reserve or undelegate your LEGLD from custody and initiate the 10 days unbonding period, in which case you should activate your knight so at least the thief can't withdraw the unbonded EGLD. If you want to protect the funds in your balance as well, you should check out MultiversX's guardian feature

SALSA's Heirs Feature

Across all blockchains there are thousands of accounts for which the private keys are lost and the funds are lost forever.

In order to prevent this from happening, we implemented the Heirs feature. Like Knights, it only applies to the user's funds in SALSA's custody.



How does it work ?

If you lose access to your wallet, all you have to do is wait for the inheritance period to pass, then your heir will have access to your funds in SALSA's SC.

Here are the functions you can access:

set heir

- send the public address of your friend's wallet, along with the number of days after which you want him to be entitled to the inheritance (1 – 10 years)
- each time you interact with SALSA's SC, the inheritance period is reset

cancel heir - you can relieve your heir from his duties only if you don't have a confirmed knight (activated or not)

reset time - reset the inheritance period

These are your heir's functions:

- **remove heir** - your heir can resign from his duties at any time (note: a wallet address can not be heir for more than 10 users)
- **unDelegate heir** - the heir can undelegate your funds if entitled [if there is an arbitrage opportunity you will receive the undelegated amount instantly (total or partial)]
- **unDelegate Now heir** - the heir can unDelegate Now your funds if entitled
- **remove reserve heir** - the heir can remove your reserve if entitled
- **withdraw heir** - the heir can withdraw your unbonded EGLD if entitled

Note: the heir inherits access only to your funds from SALSA's SC. If you lose access to your wallet and you have funds in your wallet's balance, the heir won't be able to access them.

SALSA's Arbitrage Feature

LEGLD is listed for trading on both OneDex and xExchange exchanges. This means you can trade EGLD for LEGLD or the other way around, if the exchange rate is better than SALSA's. Because of this rates difference, we implemented the arbitrage feature.

Every time a user delegates EGLD or undelegates LEGLD, SALSA checks the prices on the exchanges.

If LEGLD is cheaper there, SALSA buys it (totally or partially) instead of delegating to SA. The user receives the same amount as before, but SALSA has now excess LEGLD, which is burned in order to increase the token's value.

If LEGLD is more expensive on exchanges, SALSA sells it (totally or partially) instead of undelegating from SA. The user receives the same amount, but SALSA has now excess EGLD, which is distributed proportionally to the users that added rewards.

Links

SALSA

<https://liquid.staking.agency>

<https://devnet-liquid.staking.agency> (test version)

https://t.me/SALSA_Robot

Social media

Twitter - https://twitter.com/liquid_egld

Telegram 🇪🇺 - https://t.me/Liquid_eGLD

Telegram 🇧🇪 - https://t.me/Liquid_eGLD_ro

Telegram Announcements - https://t.me/Liquid_eGLD_Announcements

Exchanges

OneDex – <https://swap.onedex.app> (check out the **high APR farms** !)

xExchange – <https://xexchange.com>