

Guide for Axelar Delegators

How to decide where to stake?

Axelar powers the cross-chain future

[Axelar](#) delivers secure cross-chain communication for Web3. That means dApp users can interact with any asset, any application, on any chain, with one click. You can think of it as Stripe for Web3. Developers interact with a simple API atop a permissionless network that routes messages and ensures network security via proof-of-stake consensus.



What is the role of delegators?

Safeguarding the Axelar network is not the sole responsibility of validators. Token holders can use their AXL tokens to participate in the staking process and share the responsibility, rewards and risk with validators. Axelar currently operates with a set of maximum 50 active validators selected by voting power. A validator's voting power is proportional to their total stake which includes the tokens that delegators stake with them on top of their self-delegated amount. Axelar's pioneering implementation of quadratic voting ensures distribution of voting power across all validators. In return, delegators receive a share of the validator's revenue which is tied to their performance. When a token holder decides to stake their AXLs, they can also participate in governance, allowing them to vote on network proposals such as protocol upgrades.

A delegator may choose to move their staked AXLs away from a certain validator and switch to another validator (redelegate) or remove their stake completely (unbond). If a validator's total stake falls below the top 50 validators they will be removed from the active set. Validators receive rewards for good performance but may also be penalised if they misbehave. In turn, delegators receive a share of the validator's revenue proportional to their bonded stake minus the validator's commission rate. This inherent mechanism incentivises delegators to select performant validators and monitor their behaviour throughout the bonding period.

Axelar currently supports [Cosmostation](#), [Keplr](#) and [Ledger](#) wallets. Learn more about how to become an Axelar delegator [here](#).

What to look for when choosing a validator?

Being an Axelar validator is not a trivial task; it requires a knowledgeable team, resources and experience in running Cosmos and EVM chains. Validators are required to produce and sign blocks (standard for Proof of Stake chains) and participate in multi-party protocols that are intrinsic to Axelar. What is more, they are required to run full nodes for all the EVM chains they support and ensure they are voting correctly and consistently on EVM transactions. Being a delegator does not come with such requirements but staking should not be a passive task either. In order to choose a validator, delegators have access to a range of performance metrics and analytics in the [Metrika](#) platform.

Delegators as Watchtowers

- Select validators carefully before delegating. Check for fundamental metrics and performance KPIs. A current snapshot can be helpful but provides a partial view. Historical data allows delegators to opt for validators with a good track record.
- Actively monitor validator performance. After selecting a validator, ensure your validator performs at a satisfactory level. If not, you may unbond or redelegate. In doing so, you protect your investment while actively participating in the operational health and security of the network.
- Spread your stake by delegating to more than one validators. Consider selecting a few different validators not only to manage the associated risk but also prevent stake concentration. In an ideal state, the stake should be well distributed across a range of strongly performing validators.

How to use the Metrika platform?

Validators earn rewards on the basis of participation in three fundamental mechanisms:

- ① **Participation in the underlying Tendermint Consensus layer**
- ② **Participation in Axelar's multi-party cryptography protocols**
- ③ **Voting to verify events on the external chains they maintain**

Rewards are accrued at the end of each block and differ depending on the mechanism. To incentivise good behaviour, rewards may be slashed and the slashing rules are different for each of these components. For example, a validator may be penalised if they lose liveness, double-sign blocks or vote incorrectly on external chains.

For more details about the slashing rules for each of the components see [here](#).

You can navigate the Axelar dashboards to understand the KPIs associated with these mechanisms and monitor validator performance across these.

- ▶ **Start with the basics:** use the Validator Overview table to track total stake and voting power.
 - Voting power corresponds to the fraction of a validator’s total stake over the total amount of AXLs staked in the network and it is used to determine block proposers and rewards.
 - Quadratic voting is introduced in Axelar for validation and processing of cross-chain transactions.
 - Total delegations include self-delegations.
 - Take note of a validator’s commission rate as this is applied to the revenue they earn and paid by delegators. Selecting a validator with a low commission rate is not necessarily a good practice. A performant validator with a high commission rate can potentially return more rewards than a poorly performing validator with low commission rate. Remember, the role of validators in Axelar goes beyond the standard responsibilities of a PoS chain in that it requires operators to maintain infrastructure that scales with the number of external chains.

Validator Overview ⓘ

Filters:

Validator	Total Stake	Voting Power (%)	Quadratic Voting Power (%)	Total Delegations	Commission Rate	Status
Lemniscap axelarvaloper1ds9z59d9szmxlzt6f8f616sgaenxdy6095gcg	24,070,293	7.55%	4.32%	100	5.00%	BONDED
P2P_ORG Validator axelarvaloper13s44uvtzf578zjze9eqeh0mnmj60pwn83frcp	22,079,784	6.93%	4.13%	48	8.00%	BONDED
LunaNova axelarvaloper12048f0g2qvm4xdzu9knh7qq4srr5lqk53hfn	15,398,638	4.83%	3.45%	33	9.40%	BONDED
Figment axelarvaloper1uvx854yjn9re8vu74067u68r4ar70tywgpwgcg	15,080,930	4.73%	3.42%	77	10.00%	BONDED
ChainodeTech axelarvaloper1zcsv9jp24n10e4vha3618dzypy363sw3rgq0zy	13,947,473	4.38%	3.28%	25	9.00%	BONDED
BrightLystake axelarvaloper1kkrp9ulfea5klfz7yjk0lat2yuxystgfgz6zu	11,759,774	3.69%	3.02%	100	5.00%	BONDED
Finoa-Consensus-Services axelarvaloper108j4hv0cd7sdgnta7l66g7hjuzu3f29chfkvcg	11,581,090	3.63%	2.99%	14	10.00%	BONDED
Everstake axelarvaloper108j4hv0cd7sdgnta7l66g7hjuzu3f29chfkvcg	10,941,934	3.43%	2.91%	38	10.00%	BONDED

- ▶ **Use the Validator Activity table to track important KPIs that demonstrate liveness and participation in multiparty cryptography protocols.**
 - “Missed blocks” summarises the number of blocks that a validator failed to sign over the selected time range (e.g. 1 day, 1 week, 2 weeks). Remember that Tendermint Consensus rewards require validators to sign at least 50% of the blocks for every 35,000 block window. For every block they miss they lose 0.01% of rewards per block for downtime. If they lose liveness beyond the 35,000 block window then they are “jailed” for two hours. While a validator is “jailed”, they stop accruing the corresponding rewards but it’s an essential mechanism as it prevents repeated slashing for the same issue. A validator can choose to unjail themselves as soon as their issue is resolved.
 - For multi-party signing, liveness is signalled via a “heartbeat” response that is sent every 50 blocks. Note that if a validator fails to submit a heartbeat, they stop accruing rewards from multi-party signing until they submit their next heartbeat (minimum of 50 blocks).
 - “Keygen participation” is largely a metric which validators track and refers to the keygen and key rotation that the network performs periodically.

- Furthermore, validators are expected to participate in signing requests. Such signing events are requested every time a user wishes to transfer assets or data to or from an external chain. A low level of “signing participation” may signal an underlying health issue in the node. In the case that a validator fails to participate in multi-party signing, they are suspended and lose the corresponding multi-party signing rewards for a window of 8500 blocks. This is the Axelar-specific jail mechanism. A validator is jailed (or TSS-suspended) in Axelar when they are considered “live” but fail to participate in multi-party signing. During this time, a validator stops accruing the corresponding rewards.

Validator	Missed Blocks	Missed Heartbeats	Keygen Participation	Threshold Signing Participation
Lemniscap axelarvalope1ds9z59d9zmx1zt6t8f616sgaenxdy6095gcg	0	0	null	100.00%
P2P.ORG Validator axelarvalope13s44uvtzf578zjze9eqeh0mneej60pwn83frcp	0	0	null	100.00%
LunaNova axelarvalope12048f0g2qvm4xdru9knh7qq4err5lqkx53hfn	0	0	null	100.00%
Figment axelarvalope1uvx854yjn9re8vu74067u68i4ar70tywgpcwg	0	0	null	100.00%
ChainodeTech axelarvalope1zcsv9jz24n10e4vha3618dzypy363sw3rgq0zy	0	0	null	100.00%
Brightlystake axelarvalope1kkrr9uifea5klfr7yjk0lat2yuxystgfz6zu	0	0	null	100.00%
Finoa-Consensus-Services axelarvalope1d8j4hv8c07sdgnta7166g7hjuzu3129chfkvcq	0	0	null	100.00%
Everstake axelarvalope1nner17nn7vv19c1mfan44dnv55anadue508uux8hamux	0	0	null	100.00%

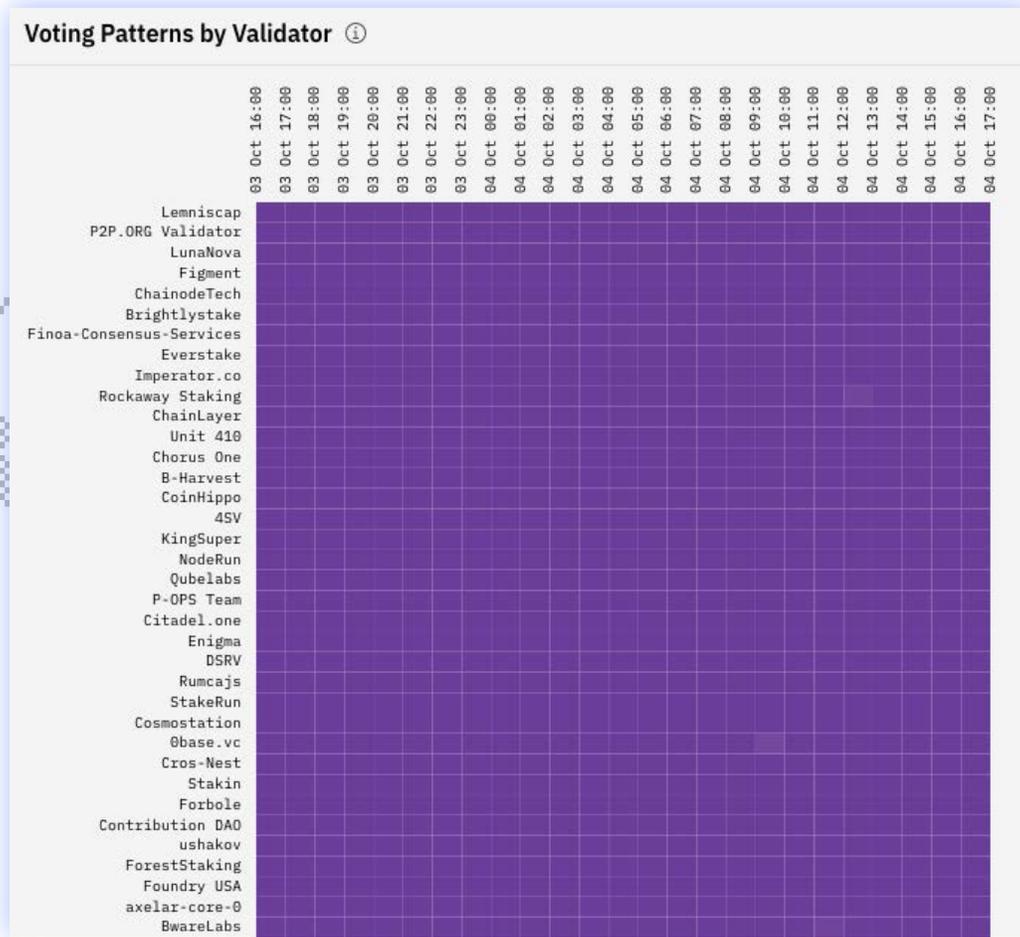
Validators are sorted by stake by default but you can sort by any other column (e.g. Missed Heartbeats) to understand how validators stack up against each other in these fundamental metrics.

► **EVM voting is the third mechanism for which validators accrue rewards.**

A big part of the Validator Overview dashboard is dedicated to EVM voting as this is a complex operation and the corresponding analysis is largely focused on assisting validators resolve issues they may have and check if the root cause is localised or network-wide - in other words, does the validator need to fix anything? This section is also useful to delegators since validators are expected to vote correctly or otherwise they lose their accrued rewards.

Validator	Abstained	Voted Yes	Voted No
Lemniscap axelarvalope1ds9z59d9zmx1zt6t8f616sgaenxdy6095gcg	0	255	0
P2P.ORG Validator axelarvalope13s44uvtzf578zjze9eqeh0mneej60pwn83frcp	0	255	0
LunaNova axelarvalope12048f0g2qvm4xdru9knh7qq4err5lqkx53hfn	0	255	0
Figment axelarvalope1uvx854yjn9re8vu74067u68i4ar70tywgpcwg	0	255	0
ChainodeTech axelarvalope1zcsv9jz24n10e4vha3618dzypy363sw3rgq0zy	0	255	0
Brightlystake axelarvalope1kkrr9uifea5klfr7yjk0lat2yuxystgfz6zu	0	255	0

- ▶ **Voting Patterns by Validator** show **historical voting participation** to visually spot cases where a validator may have abstained from voting. If a single validator is abstaining or voting no frequently, then it's likely that the issue is isolated to the validator, but if many other validators are exhibiting the same behavior, there might be a broader issue, perhaps with the external chain.

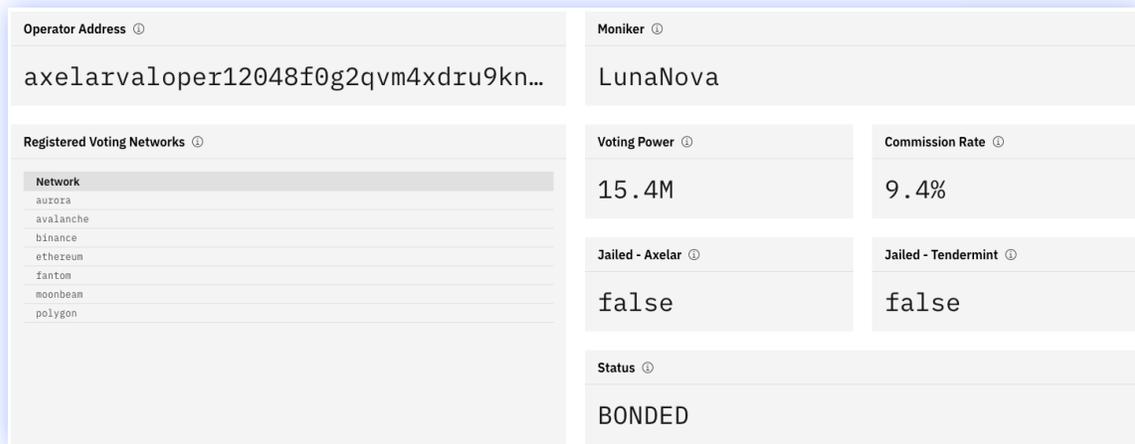


- ▶ **A deep-dive snapshot analysis of “No” votes** is meant to assist with anomalies in voting usually manifesting as “No” votes. “Average 1h No Vote Ratio” is grouped by external network over 1h intervals while the “Latest 1h No Vote Ratio” may be used to understand if the validator has recovered or is still voting “No”. Validators with a higher “No” vote ratio, relative to the average over the period, in the last hour are experiencing degraded performance, while validators with a lower “No” vote ratio have likely resolved an issue or found a way to improve performance.

Ratio of No Votes by Validator ⓘ

Validator	Network	Average 1h No Vote Ratio	Latest 1h No Vote Ratio
NodeRun	binance	50.00%	0.00%
Forbole	ethereum	4.05%	0.00%
ForestStaking	binance	50.00%	0.00%
Foundry USA	ethereum	1.35%	0.00%
QuantNode	polygon	1.00%	0.00%
Validatrium.com	polygon	1.33%	0.00%

- ▶ **Click on any validator and navigate to a drill-down into their performance and activity** over a selected time frame. Check current validator status through a set of key parameters including Registered Voting Networks, Status, Voting Power, Commission Rate, Jailed - Axelar and Jailed - Tendermint. It is noteworthy that validators are not required to maintain the external networks but the more they do the more rewards they will earn for verifying external events.



Operator Address [ⓘ]
axelarvaloper12048f0g2qvm4xdru9kn...

Moniker [ⓘ]
LunaNova

Registered Voting Networks [ⓘ]

Network
aurora
avalanche
binance
ethereum
fantom
moonbeam
polygon

Voting Power [ⓘ]
15.4M

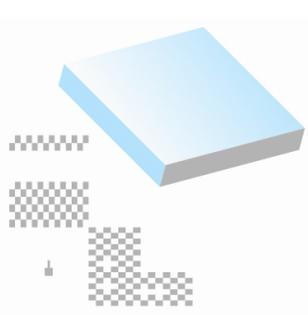
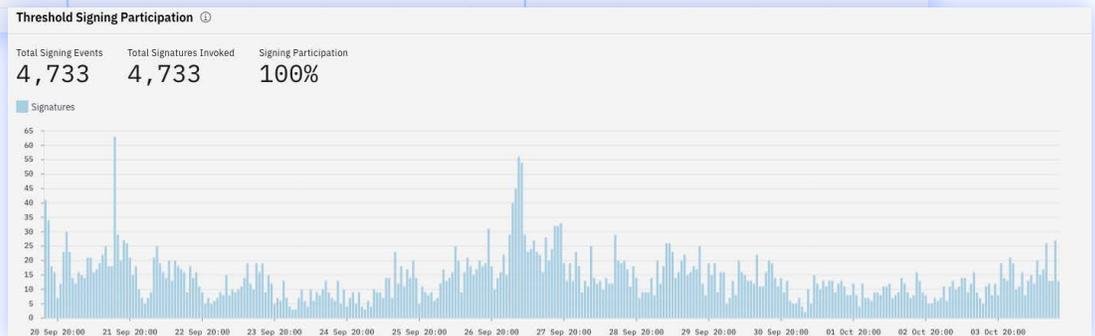
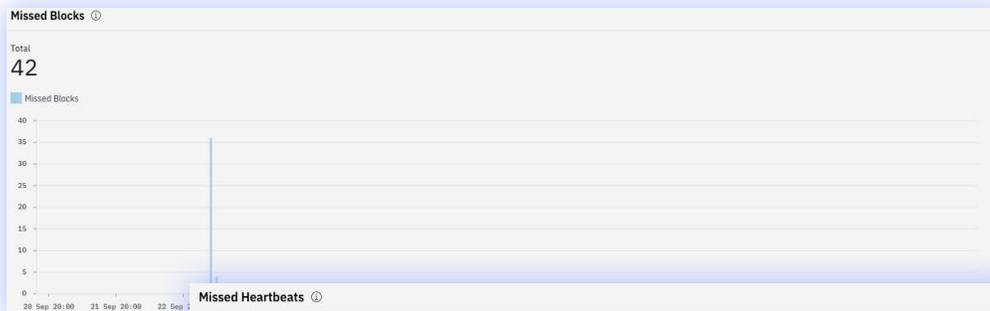
Commission Rate [ⓘ]
9.4%

Jailed - Axelar [ⓘ]
false

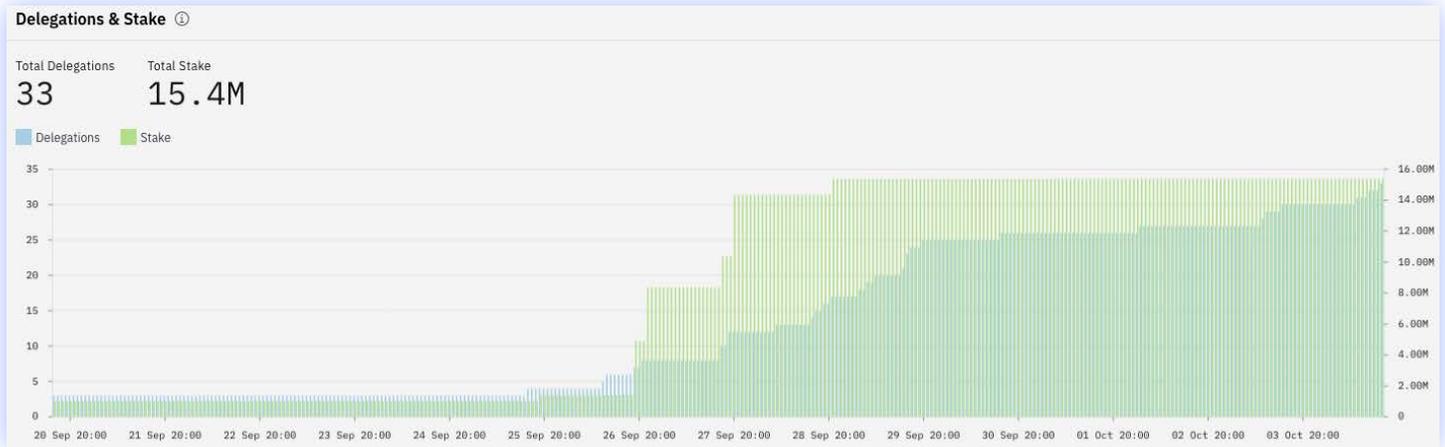
Jailed - Tendermint [ⓘ]
false

Status [ⓘ]
BONDED

Find time series analysis for a variety of metrics such as Missed Heartbeats, Missed Blocks, Keygen and Signing Participation...



- ▶ **Review historical Delegations and Stake data.** A decrease in stake that is not attributed to an undelegated stake, could be the result of slashing.



Indicative KPI Ranges

Below is an indicative example of healthy ranges for missed blocks, missed heartbeats and no-vote ratio. Note these are based on historical observations and may change with more recent data. 1 day ranges are a bit more generous to allow for spikes that are common during major network upgrades or incidents with external chains. Be mindful of these incidents as they may impact a validator’s performance for reasons beyond their control. Check how other validators fare to understand if the root cause is network wide or local.

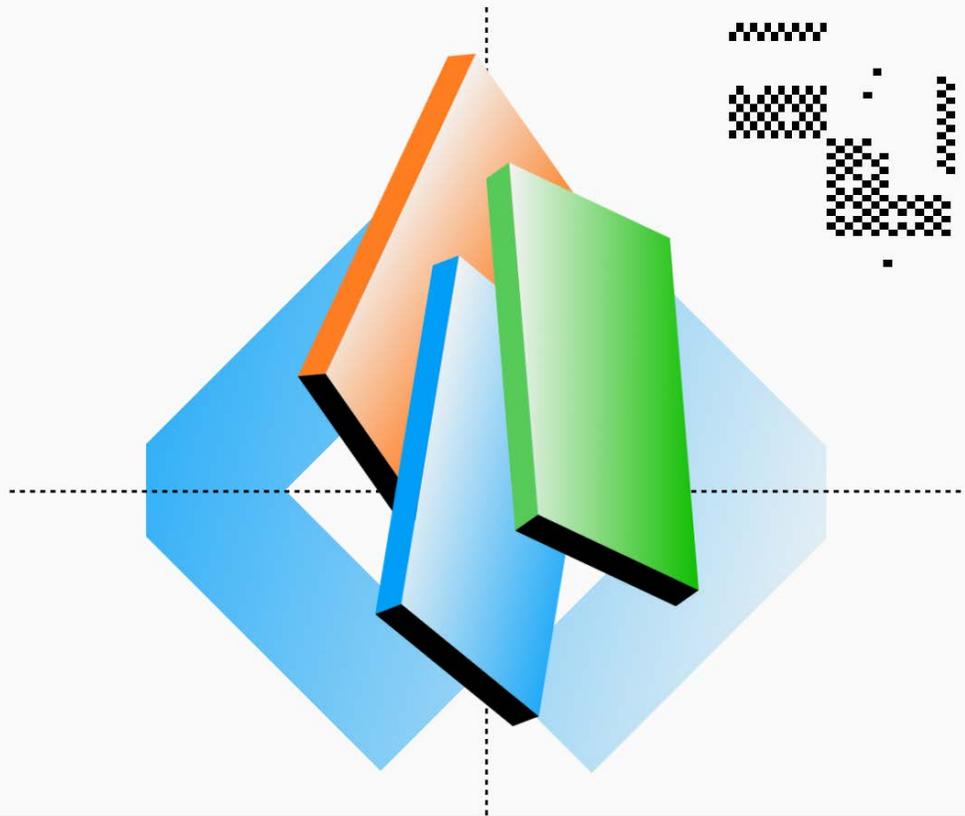
KPI	1 Day	1 Week	2 Weeks
Missed Blocks	<5	<50	<100
	5 - 50	50 - 500	100 - 1000
	>50	>500	>1000
Missed Heartbeats	<2	<5	<10
	2 - 8	5 - 50	10 - 100
	>8	>50	>100
Avg 1h No Vote Ratio by Network, %	<5	<5	<5
	5 - 15	5 - 15	5 - 15
	>15	>15	>15

A very important note

All these insights are provided to help you draw your own conclusions. To support your decision-making process beyond the Axelar KPIs, make sure you do-your-own-research outside of the Axelar scope too. Spend some time researching the validators: visit their website, find out what is their mission, how they run their infrastructure and whether they have experience in other chains.

- Remember we are always here to help, join our Metrika Discord Server [here](#).
- To learn more about Axelar click [here](#) or join the thriving community on [Discord](#).
- To learn more about how the AXL token works click [here](#).

The contents of this Guide for Axelar Delegators are not to be construed as financial advice.



About Metrika

Metrika delivers performance and reliability tools for blockchain networks through its operational intelligence platform. The Axelar Community Dashboards available on the Metrika platform provide real-time visibility into the operational health of the blockchain network. Our platform is multi-protocol and purpose-built for decentralised operations. Stay tuned as we will be adding more metrics, charts, features and tools for the Axelar community!