

JSON-RPC

Find out how to manage and interact with the Filecoin network using the standard JSON-RPC API.

Quick start

The easiest way to test the API is to use Curl commands. A Curl command to the Filecoin network looks something like this:

...

```
Copy curl --location --request POST '\ --header 'Content-Type: application/json' \ --data-raw '{ "jsonrpc": "2.0", "method": "Filecoin.ChainHead", "params": [], "id": 1 }'
```

...

Step-by-step example

1. In a terminal window, use Curl to request the current chain head from a public [Glif](#)
2. node.\
- 3.
4. ...
5. Copy
6. curl-XPOST'https://api.node.glif.io\'
7. -H'Content-Type: application/json\'
8. --data '{"jsonrpc": "2.0", "id": 1, "method": "Filecoin.ChainHead", "params": []}'
9. ...
10. ...
11. Copy
12. {"jsonrpc": "2.0", "result": {"Cids": [{""/": "bafy2bzaceayoigaf3v5muqmknjpjfkuse43jp4t2zxhpmykhqynqhkdgpggybc"}, {""/": "bafy2bzacecnrtzlhn6h75gm7tozhzuw77plvdhniwzlfj7wgmyuju6wn573h22"}, {""/": "bafy2bzacecygiafsqv7ecb2gvodzh74eret3pchwe5e4j5a3mzlwasvndi6i"}, {""/": "bafy2bzacebe477tdmijfse4je2g63gnnkdgzj3ftq6zbygd7toszkrjs6uu"}, {""/": "bafy2bzacedoe6hcxyc2cgqzbg4p7qolbd5imbjpinz2tj4n7o3kw2md4uv2ttq"}, {""/": "bafy2bzacec7wbqvskwvolireljmufszdu5nk37yvg4qtxgnrwbypgoenmhoc6"}, {""/": "bafy2bzaceahxdiauteywbjnwj3ntr72qcbamtq3nbvjzyn5wruithpyqyxbm"}], "Blocks": [{"Miner": "f0693008", "Ticket": {"VRFPProof": "uLR0LHfNBAtQzyYUVBiEXzylPv3yPIEsJQGTpaAvO1ZriPZ7wC2IFpw7mrz1RvDQEfsgRXGxb6APTRvrPiFEAe35RFNLKC9SYb64PNcDYwGY4de5LdlHfyUv+Ovwg5"}]}]}
13. ...
14. The ChainHead endpoint doesn't require any input parameters, so we've left params
15. an empty array []
16. .
17. The above command will output a large chunk of JSON data. You can use [JSON processor jq](#)
18. toprettify
19. the output:
20. ...
21. Copy
22. ...
- 23.
24. ...
25. Copy
26. curl-XPOST'https://api.node.glif.io\'
27. -H'Content-Type: application/json\'
28. --data '{"jsonrpc": "2.0", "id": 1, "method": "Filecoin.ChainHead", "params": []}'
29. |jq
30. ...
31. ...
32. Copy
33. {
34. "jsonrpc": "2.0",
35. "result": {
36. "Cids": [
37. {
38. "/": "bafy2bzacecrbhy67by4upktab6rvbgd3w5jml7zog4ifoaupo35yo4rbbc4am"
39. },
40. {
41. "/": "bafy2bzacecm42csr2ysmgpj54lz762iom4n4gcafkerijrzsfcz3jni2gqyu"
42. }
43.],
44. "Blocks": [
45. {
46. "Miner": "f0152747",
47. "Ticket": {
48. ...
49. ...
- 50.

Permissions

Each method has specific permissions that must be met before you can receive a response from a Filecoin node. Methods with the read permission can be called by anyone at anytime, without the need for a token. All other permissions require you to send an authentication along with your request.

- read
- : Read node state, no private data.
- write
- : Write to local store / chain, and read permissions.
- sign
- : Use private keys stored in wallet for signing, read and write permissions.
- admin
- : Manage permissions, read, write, and sign permissions.
-

Authentication

Each node implementation has different ways to generate and manage authentication tokens. Take a look at your node's specific documentation:

- [Lotus](#)
- [Venus](#)
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If you are using a node provider service like [Glif](#), take a look at your providers documentation to find out how to manage authentication tokens.

[Previous Filecoin.sol](#) [Next Auth](#)

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