

Quickstart

This quickstart guide will help you set up and make calls on the Optimism network using the Infura endpoints.

Don't have an Infura account? Sign up for our free plan and start using the Optimism network!

[Sign up](#)

Prerequisites

Ensure you have an [API key](#) with the Optimism network enabled.

Make calls

cURL

Run the following command in your terminal. Replace YOUR-API-KEY with your actual Infura API key.

```
curl https://optimism-mainnet.infura.io/v3/YOUR-API-KEY \-X POST \-H "Content-Type: application/json" \-d '{"jsonrpc":"2.0","method":"eth_blockNumber","params":[],"id":1}'
```

Node (JavaScript)

In these examples, you'll use [npm](#) as your package manager.

Node Fetch

1. In your project folder, install the Node Fetch package using npm:
2. `npm i node-fetch`
3. Create your Javascript file and copy the following code:
4. Replace YOUR-API-KEY
5. with your actual Infura API key.
6. `index.js`
7. `import`
8. `fetch`
9. `from`
10. `'node-fetch'`
11. `;`
12. `fetch`
13. `(`
14. `"https://optimism-mainnet.infura.io/v3/YOUR-API-KEY"`
15. `,`
16. `{`
17. `method`
18. `:`
19. `"POST"`
20. `,`
21. `headers`
22. `:`
23. `{`
24. `"Content-Type"`
25. `:`
26. `"application/json"`
27. `}`
28. `,`
29. `body`
30. `:`
31. `JSON`
32. `.`
33. `stringify`
34. `(`
35. `{`
36. `jsonrpc`
37. `:`
38. `"2.0"`
39. `,`

```

40. method
41. :
42. "eth_blockNumber"
43. ,
44. params
45. :
46. [
47. ]
48. ,
49. id
50. :
51. 1
52. }
53. )
54. }
55. )
56. .
57. then
58. (
59. response
60. =>
61. response
62. .
63. json
64. (
65. )
66. )
67. .
68. then
69. (
70. data
71. =>
72. {
73. console
74. .
75. log
76. (
77. data
78. )
79. ;
80. }
81. )
82. .
83. catch
84. (
85. error
86. =>
87. {
88. console
89. .
90. error
91. (
92. error
93. )
94. ;
95. }
96. )
97. ;
98. Run the code using the following command:
99. node index.js

```

Axios

1. In your project folder, install the Axios package using npm:
2. `npm i axios`
3. Create your Javascript file and copy the following code:
4. Replace YOUR-API-KEY
5. with your actual Infura API key.

```

6. index.js
7. const
8. axios
9. =
10. require
11. (
12. 'axios'
13. )
14. ;
15. axios
16. .
17. post
18. (
19. 'https://optimism-mainnet.infura.io/v3/YOUR-API-KEY'
20. ,
21. {
22. jsonrpc
23. :
24. '2.0'
25. ,
26. method
27. :
28. 'eth_blockNumber'
29. ,
30. params
31. :
32. [
33. ]
34. ,
35. id
36. :
37. 1
38. }
39. )
40. .
41. then
42. (
43. response
44. =>
45. {
46. console
47. .
48. log
49. (
50. response
51. .
52. data
53. )
54. ;
55. }
56. )
57. .
58. catch
59. (
60. error
61. =>
62. {
63. console
64. .
65. error
66. (
67. error
68. )
69. ;
70. }
71. )
72. ;
73. Run the code using the following command:

```

74. node index.js

Ethers

1. In your project folder, install the ethers package using npm:
2. npm install ethers
3. Create your Javascript file and copy the following code:
4. Replace YOUR-API-KEY
5. with your actual Infura API key.
6. index.js
7. const
8. ethers
9. =
10. require
11. (
12. 'ethers'
13.)
14. ;
15. const
16. provider
17. =
18. new
19. ethers
20. .
21. providers
22. .
23. JsonRpcProvider
24. (
25. 'https://optimism-mainnet.infura.io/v3/YOUR-API-KEY'
26.)
27. ;
28. provider
29. .
30. getBlockNumber
31. (
32.)
33. .
34. then
35. (
36. blockNumber
37. =>
38. {
39. console
40. .
41. log
42. (
43. blockNumber
44.)
45. ;
46. }
47.)
48. .
49. catch
50. (
51. error
52. =>
53. {
54. console
55. .
56. error
57. (
58. error
59.)
60. ;
61. }
62.)
63. ;
64. Run the code using the following command:

65. node index.js

Python

```
1. In your project folder, install therequests
2. library:
3. pip install requests
4. Create your Javascript file and copy the following code:
5. ReplaceYOUR-API-KEY
6. with your actual Infura API key.
7. index.py
8. import
9. requests
10. import
11. json
12. url
13. =
14. 'https://optimism-mainnet.infura.io/v3/YOUR-API-KEY'
15. payload
16. =
17. {
18. "jsonrpc"
19. :
20. "2.0"
21. ,
22. "method"
23. :
24. "eth_blockNumber"
25. ,
26. "params"
27. :
28. [
29. ]
30. ,
31. "id"
32. :
33. 1
34. }
35. headers
36. =
37. {
38. 'content-type'
39. :
40. 'application/json'
41. }
42. response
43. =
44. requests
45. .
46. post
47. (
48. url
49. ,
50. data
51. =
52. json
53. .
54. dumps
55. (
56. payload
57. )
58. ,
59. headers
60. =
61. headers
62. )
63. .
64. json
```

```
65. (  
66. )  
67. print  
68. (  
69. response  
70. )  
71. Run the code using the following command:  
72. python index.py
```

Next Steps

Now that you have successfully made a call to the Optimism network, you can explore more functionalities and APIs provided by Infura. Here are some suggestions:

- Explore other Optimism APIs
- : Infura supports a wide range of APIs. You can find more information in the [JSON-RPC API method documentation](#)
- .
- Try out different networks
- : Infura supports multiple networks including Ethereum, Linea, Polygon, and more.
- Monitor your usage
- : Keep an eye on your usage on the [Infura dashboard](#)
- to ensure you're not hitting your rate limits.

Remember, the Infura community is here to help. If you have any questions or run into any issues, check out the [Infura community](#) for help and answers to common questions.

Last updated on Apr 19, 2024 [Previous Optimism Next Supported networks](#)