Using ENS with Data Feeds

Lookup

Pair:Choose PairAAVE / ETHAAVE / USDADA / USDADX / USDANT / ETHAUD / USDBAL / ETHBAT / ETHBCH / USDBNB / USDBNT / ETH (Bancor)BNT / ETHBNT / USDBRENT / USDBTC / ARSBTC DifficultyBTC / ETHBTC / USDBUSD / ETHBZRX / ETHCHF / USDCOMP / ETHCOMP / USDCRO / ETHCRV / ETHDAI / ETHDAI / USDDASH / USDDMG / ETHDOT / USDENJ / ETHEOS / USDETC / USDETH / USDETH / XDREUR / MWhEUR / USDFast Gas / GweiFIL / USDFNX / USDFTM / ETHFTSE / GBPGBP / USDJPY / USDKNC / ETHKNC / USDLEND / ETHLEND / USDLINK / ETH (Bancor)LINK / ETHLINK / USDLRC / ETHLTC / USDMANA / ETHMKR / ETHMLN / ETHN225 / JPYNMR / ETHOrchidOXT / USDREN / ETH (Bancor)REN / ETHREN / USDREP / ETHRLC / ETHsCEX / USDsDEFI / USDSNX / ETHSNX / USDSUSD / ETHSXP / USDTotal Marketcap / USDTRX / USDTUSD / ETHTUSD ReservesTUSD SupplyUMA / ETHUNI / ETHUNI / USDUSDC / ETHUSDK / USDUSDT / ETHWNXM / ETHWOM / ETHWTI / USDXAG / USDXAU / USDXHV / USDXMR / USDXRP / USDXTZ / USDYFI / ETHYFI / USDZRX / ETHENS Name:Address:Hash ID:

Manual Lookup

/LookupENS Name:Address:

Naming structure

Chainlink data feeds fall under thedata.ethnaming suffix. To obtain a specific feed address, prefix this with the assets in the feed, separated by a dash (-).

PairENS Domain NameETH / USDeth-usd.data.ethBTC / USDbtc-usd.data.eth.....

Subdomains

By default, the base name structure (eth-usd.data.eth) returns the proxy address for that feed. However, subdomains enable callers to retrieve other associated contract addresses, as shown in the following table.

Contract AddressesSubdomain PrefixExampleProxyproxyproxy.eth-usd.data.ethUnderlying aggregatoraggregatoraggregator.eth-usd.data.ethProposed aggregatorproposedproposed.eth-usd.data.eth

Architecture

Resolver

For each network, there is a single Chainlink resolver, which does not change. Its address can be obtained using thedata.ethdomain. This resolver manages the subdomains associated withdata.eth.

NetworkResolver AddressEthereum Mainnet0x122eb74f9d0F1a5ed587F43D120C1c2BbDb9360B

Listening for address changes

When a new aggregator is deployed for a specific feed, it is first proposed, and when accepted becomes the aggregator for that feed. During this process, theproposedandaggregatorsubdomains for that feed will change. With each change, the resolver emits anAddrChangedevent, using the feed subdomain (for example:eth-usd.data.eth) as the indexed parameter.

Example: If you want to listen for when the aggregator of the ETH / USD feed changes, set up a listener to track theAddrChangedevent on the resolver, using a filter like this:ethers.utils.namehash('aggregator.eth-usd.data.eth').

Obtaining addresses

Reverse Lookup

Reverse lookup is not supported.

Javascript

The example below uses Javascript Web3 library to interact with ENS. See theENS documentation for the full list of languages and libraries libraries that support ENS.

This example logs the address of the data feed on the Ethereum mainnet for ETH / USD prices.

```
const Web3=require("web3")const web3=newWeb3("https://rpc.ankr.com/eth")web3.eth.ens.getAddress("eth-usd.data.eth").then((address)=>{console.log(address)})
```

Solidity

In Solidity, the address of the ENS registry must be known. According toENS documentation , this address is the same across Mainnet

and Goerli networks:

ENS registry address:0x00000000000C2E074eC69A0dFb2997BA6C7d2e1e .

Also, instead of using readable string names likeeth-usd.data.eth, resolvers accept bytes32 hash IDs for names. Hash IDs can be retrieved fromthis subgraph or via this npm packageeth-ens-namehash .

"ETH / USD" hash:0xf599f4cd075a34b92169cf57271da65a7a936c35e3f31e854447fbb3e7eb736d

// SPDX-License-Identifier: MITpragmasolidity^0.8.7;/* *THIS IS AN EXAMPLE CONTRACT THAT USES HARDCODED VALUES FOR CLARITY. * THIS IS AN EXAMPLE CONTRACT THAT USES UN-AUDITED CODE. * DO NOT USE THIS CODE IN PRODUCTION.* /// ENS Registry ContractinterfaceENS{functionresolver(bytes32node)externalviewreturns(Resolver);}// Chainlink ResolverinterfaceResolver{functionaddr(bytes32node)externalviewreturns(address);}// Consumer contractcontractENSConsumer{ENS ens;// ENS registry address: 0x00000000000C2E074eC69A0dFb2997BA6C7d2e1econstructor(addressensAddress) {ens=ENS(ensAddress);}// Use ID Hash instead of readable name// ETH / USD hash: 0xf599f4cd075a34b92169cf57271da65a7a936c35e3f31e854447fbb3e7eb736dfunctionresolve(bytes32node)publicviewreturns(address) {Resolver resolver=ens.resolver(node);returnresolver.addr(node);}} Open in Remix What is Remix?