

Supported Networks - Subscription Method

You are viewing the VRF v2 guide - Subscription method

To learn how to request random numbers without a subscription, see the [direct funding method](#) guide.

Security Considerations

Be sure to review your contracts with the [security considerations](#) in mind.

Chainlink VRF allows you to integrate provably fair and verifiably random data in your smart contract.

For implementation details, read [Introduction to Chainlink VRF](#).

Coordinator parameters

These parameters are configured in the coordinator contract. You can view these values by running `getConfigon` the coordinator or by viewing the coordinator contracts in a blockchain explorer.

- `uint16 minimumRequestConfirmations`: The minimum number of confirmation blocks on VRF requests before oracles respond
- `uint32 maxGasLimit`: The maximum gas limit supported for `fulfillRandomWords` callback.
- `uint32 stalenessSeconds`: How long the coordinator waits until we consider the ETH/LINK price used for converting gas costs to LINK is stale and use `fallbackWeiPerUnitLink`
- `uint32 gasAfterPaymentCalculation`: How much gas is used outside of the payment calculation. This covers the additional operations required to decrement the subscription balance and increment the balance for the oracle that handled the request.

Fee parameters

Fee parameters are configured in the coordinator contract and specify the premium you pay per request in addition to the gas cost for the transaction. You can view them by running `getFeeConfigon` the coordinator. The `uint32 fulfillmentFlatFeeLinkPPMTier1` parameter defines the fees per request specified in millionths of LINK. The details for calculating the total transaction cost can be found [here](#).

Configurations

VRF v2 coordinators for subscription funding are available on several networks. To see a list of coordinators for direct funding, see the [Direct Funding Configurations](#) page.

Understand Risks associated with Bridges

If you are using a cross-chain bridge to transfer your LINK tokens, read the [Bridges and Associated Risks](#) guide to understand what cross-chain bridges are and the risks associated with using them.

Ethereum mainnet

ItemValueLINK Token0x514910771AF9Ca656af840dff83E8264EcF986CAVRF
Coordinator0x271682DEB8C4E0901D1a1550aD2e64D568E69909200 gwei Key
Hash0x8af398995b04c28e9951adb9721ef74c74f93e6a478f39e7e0777be13527e7ef500 gwei Key
Hash0xff8dedfbfa60af186cf3c830acbc32c05aae823045ae5ea7da1e45fbfaba4f921000 gwei Key
Hash0x9fe0eebf5e446e3c998ec9bb19951541aee00bb90ea201ae456421a2ded86805Premium0.25 LINKMax Gas
Limit2,500,000Minimum Confirmations3Maximum Confirmations200Maximum Random Values500

Sepolia testnet

Sepolia Faucets

Testnet LINK and ETH are available from [faucets.chain.link](#). Testnet ETH is also available from several public [ETH faucets](#).

ItemValueLINK Token0x779877A7B0D9E8603169DdbD7836e478b4624789VRF
Coordinator0x8103B0A8A00be2DDC778e6e7eaa21791Cd364625150 gwei Key
Hash0x474e34a077df58807dbe9c96d3c009b23b3c6d0cce433e59bbf5b34f823bc56cPremium0.25 LINKMax Gas
Limit2,500,000Minimum Confirmations3Maximum Confirmations200Maximum Random Values500

Goerli testnet

Goerli Faucets

Testnet LINK is available from <https://faucets.chain.link/goerli>

Testnet ETH is available from <https://goerlifaucet.com/> or faucets listed at <https://faucetlink.to/goerli>

ItemValueLINK Token0x326C977E6efc84E512bB9C30f76E30c160eD06FBVRF
Coordinator0x2Ca8E0C643bDe4C2E08ab1fA0da3401AdAD7734D150 gwei Key
Hash0x79d3d8832d904592c0bf9818b621522c988bb8b0c05cdc3b15aea1b6e8db0c15Premium0.25 LINKMax Gas
Limit2,500,000Minimum Confirmations3Maximum Confirmations200Maximum Random Values500

BNB Chain mainnet

Important

The LINK provided by the [BNB Chain Bridge](#) is not ERC-677 compatible, so cannot be used with Chainlink oracles. However, it can be [converted to the official LINK token on BNB Chain using Chainlink's PegSwap service](#).

ItemValueLINK Token0x404460C6A5EdE2D891e8297795264fDe62ADBB75VRF
Coordinator0xc587d9053cd1118f25F645F9E08BB98c9712A4EE200 gwei Key
Hash0x114f3da0a805b6a67d6e9cd2ec746f7028f1b7376365af575cfea3550dd1aa04500 gwei Key
Hash0xba6e730de88d94a5510ae6613898bfb0c3de5d16e609c5b7da808747125506f71000 gwei Key
Hash0x17cd473250a9a479dc7f234c64332ed4bc8af9e8ded7556aa6e66d83da49f470Premium0.005 LINKMax Gas
Limit2,500,000Minimum Confirmations3Maximum Confirmations200Maximum Random Values500

BNB Chain testnet

BNB Chain Faucet

Testnet LINK is available from <https://faucets.chain.link/bnb-chain-testnet>

ItemValueLINK Token0x84b9B910527Ad5C03A9Ca831909E21e236EA7b06VRF
Coordinator0x6A2AAd07396B36Fe02a22b33cf443582f682c82f50 gwei Key
Hash0xd4bb89654db74673a187bd804519e65e3f71a52bc55f11da7601a13dcf505314Premium0.005 LINKMax Gas
Limit2,500,000Minimum Confirmations3Maximum Confirmations200Maximum Random Values500

Polygon (Matic) mainnet

Important

The LINK provided by the [Polygon \(Matic\) Bridge](#) is not ERC-677 compatible, so cannot be used with Chainlink oracles. However, it can be [converted to the official LINK token on Polygon \(Matic\) using Chainlink's PegSwap service](#)

ItemValueLINK Token0xb0897686c545045aFc77CF20eC7A532E3120E0F1VRF
Coordinator0xAE975071Be8F8eE67addBC1A82488F1C24858067200 gwei Key
Hash0x6e099d640cde6de9d40ac749b4b594126b0169747122711109c9985d47751f93500 gwei Key
Hash0xcc294a196eeeb44da288d17c0625cc88d70d9760a69d58d853ba6581a9ab0cd1000 gwei Key
Hash0xd729dc84e21ae57ffb6be0053bf2b0668aa2aaf300a2a7b2ddf7dc0bb6e875a8Premium0.0005 LINKMax Gas
Limit2,500,000Minimum Confirmations3Maximum Confirmations200Maximum Random Values500

Polygon (Matic) Mumbai testnet

Mumbai Faucet

Testnet LINK and MATIC are available from [the Polygon faucet](#) and <https://faucets.chain.link/mumbai> .

ItemValueLINK Token0x326C977E6efc84E512bB9C30f76E30c160eD06FBVRF
Coordinator0x7a1BaC17Ccc5b313516C5E16fb24f7659aA5ebed500 gwei Key
Hash0x4b09e658ed251bcafeebbc69400383d49f344ace09b9576fe248bb02c003fe9fPremium0.0005 LINKMax Gas
Limit2,500,000Minimum Confirmations3Maximum Confirmations200Maximum Random Values500

Avalanche mainnet

ItemValueLINK Token0x5947BB275c521040051D82396192181b413227A3VRF
Coordinator0xd5D517aBE5cF79B7e95eC98dB0f0277788aFF634200 gwei Key
Hash0x83250c5584ffa93feb6ee082981c5ebe484c865196750b39835ad4f13780435d500 gwei Key
Hash0x89630569c9567e43c4fe7b1633258df9f2531b62f2352fa721cf3162ee4ecb461000 gwei Key
Hash0x06eb0e2ea7cca202fc7c8258397a36f33d88568d2522b37aaa3b14ff6ee1b696Premium0.005 LINKMax Gas
Limit2,500,000Minimum Confirmations1Maximum Confirmations200Maximum Random Values500

[Avalanche Fuji testnet](#)

Avax Fuji Faucet

Testnet LINK is available from <https://faucets.chain.link/fuji>

ItemValueLINK Token0x0b9d5D9136855f6FEc3c0993feE6E9CE8a297846VRF
Coordinator0x2eD832Ba664535e5886b75D64C46EB9a228C2610300 gwei Key
Hash0x354d2f95da55398f44b7cff77da56283d9c6c829a4bdf1bbcaf2ad6a4d081f61Premium0.005 LINKMax Gas
Limit2,500,000Minimum Confirmations1Maximum Confirmations200Maximum Random Values500

[Fantom mainnet](#)

Important

You must use ERC-677 LINK on Fantom. ERC-20 LINK will not work with Chainlink services.

ItemValueLINK Token0x6F43FF82CCA38001B6699a8AC47A2d0E66939407VRF
Coordinator0xd5D517aBE5cF79B7e95eC98dB0f0277788aFF6344000 gwei Key
Hash0xb4797e686f9a1548b9a2e8c68988d74788e0c4af5899020fb0c47784af76ddfa10000 gwei Key
Hash0x5881eea62f9876043df723cf89f0c2bb6f950da25e9dfe66995c24f919c8f8ab20000 gwei Key
Hash0x64ae04e5dba58bc08ba2d53eb33fe95bf71f5002789692fe78fb3778f16121c9Premium0.0005 LINKMax Gas
Limit2,500,000Minimum Confirmations1Maximum Confirmations200Maximum Random Values500

[Fantom testnet](#)

Fantom Testnet Faucet

Testnet LINK is available from <https://faucets.chain.link/fantom-testnet>

ItemValueLINK Token0xfaFedb041c0DD4fA2Dc0d87a6B0979Ee6FA7af5FVRF
Coordinator0xbd13f08b8352A3635218ab9418E340c60d6Eb4183000 gwei Key
Hash0x121a143066e0f2f08b620784af77cccb35c6242460b4a8ee251b4b416abaebd4Premium0.0005 LINKMax Gas
Limit2,500,000Minimum Confirmations1Maximum Confirmations200Maximum Random Values500

[Arbitrum mainnet](#)

ItemValueLINK Token0xf97f4df75117a78c1A5a0DBb814Af92458539FB4VRF
Coordinator0x41034678D6C633D8a95c75e1138A360a28bA15d12 gwei Key
Hash0x08ba8f62ff6c40a58877a106147661db43bc58dabfb814793847a839aa03367f30 gwei Key
Hash0x72d2b016bb5b62912afea355ebf33b91319f828738b111b723b78696b9847b63150 gwei Key
Hash0x68d24f9a037a649944964c2a1ebd0b2918f4a243d2a99701cc22b548cf2daff0Premium0.005 LINKMax Gas
Limit2,500,000Minimum Confirmations1Maximum Confirmations200Maximum Random Values500

[Arbitrum Sepolia testnet](#)

Arbitrum Sepolia Testnet Faucet

Testnet LINK is available from <https://faucets.chain.link/arbitrum-sepolia>

ItemValueLINK Token0xb1D4538B4571d411F07960EF2838Ce337FE1E80EVRF
Coordinator0x50d47e4142598E3411aA864e08a44284e471AC6f50 gwei Key
Hash0x027f94ff1465b3525f9fc03e9ff7d6d2c0953482246dd6ae07570c45d6631414Premium0.005 LINKMax Gas
Limit2,500,000Minimum Confirmations1Maximum Confirmations200Maximum Random Values500