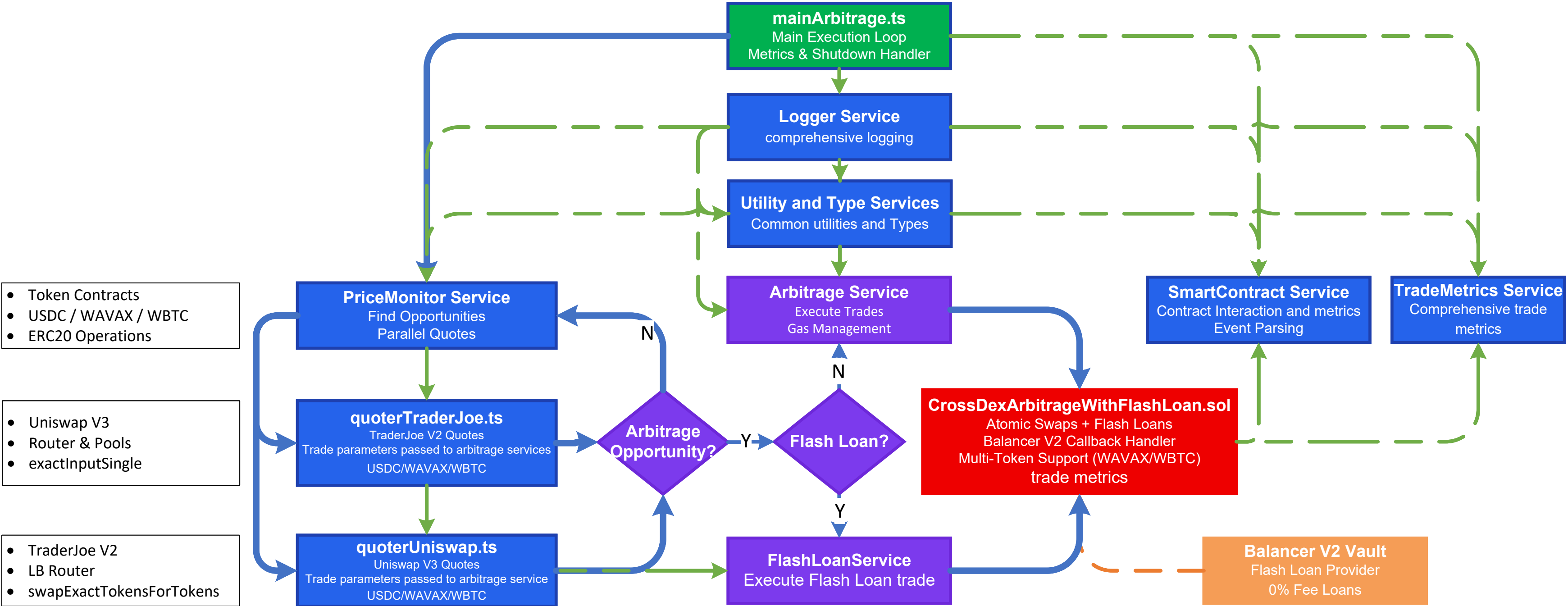


Cross-DEX Arbitrage Bot with Balancer V2 Flash Loans

Supporting USDC-WAVAX and USDC-WBTC Trading Pairs



- Token Contracts
- USDC / WAVAX / WBTC
- ERC20 Operations

- Uniswap V3
- Router & Pools
- exactInputSingle

- TraderJoe V2
- LB Router
- swapExactTokensForTokens

Arrow Types:

- Main execution flow
- - - Flash loan flow
- Data/utility connections

- 1 Start arbitrage discovery
- 2 Monitor prices on both DEXs (parallel quotes)
- 3 Identify arbitrage opportunity (USDC→WAVAX/WBTC→USDC)
- 4 Request flash loan from Balancer V2 (0% fee)
- 5 Execute atomic swap: Buy low on DEX1, Sell high on DEX2, Repay flash loan + Keep profit

Key Features

- ✓ Balancer V2 Flash Loans (0% fee)
- ✓ Multi-token support (USDC, WAVAX, WBTC)
- ✓ Atomic execution (all-or-nothing)
- ✓ Parallel price fetching for speed
- ✓ Gas optimization & dynamic pricing
- ✓ Comprehensive error handling & recovery

Performance Optimizations

- ✓ Gas-optimized contract <24KB
- ✓ Parallel quote fetching
- ✓ Cached gas prices (10s TTL)

Supported Trading Pairs

- ✓ USDC ↔ WAVAX (Uniswap V3)
- ✓ USDC ↔ WAVAX (TraderJoe V2)
- ✓ USDC ↔ WBTC (Uniswap V3)
- ✓ USDC ↔ WBTC (TraderJoe V2)