

Nansen API Integration - Institutional-Grade Blockchain Intelligence

Overview

Smart Money Tracker is now powered by **Nansen API**, providing institutional-grade blockchain intelligence and Smart Money tracking. This integration gives users access to data from the top 5,000 highest-performing wallets in crypto, ranked by realized profit, win rate, and consistent performance across market cycles.

Key Capabilities

1. Smart Money Tracking

- **Netflows:** Track what tokens Smart Money wallets are buying and selling in real-time
- **Holdings:** Monitor current token positions of top-performing wallets
- **DEX Trades:** View recent decentralized exchange trading activity from Smart Money
- **Labels:** Identify wallets by category (30D Smart Trader, 90D Smart Trader, Fund, etc.)

2. Whale Activity Intelligence

- **Large Transfers:** Monitor significant token movements
- **PnL Leaderboard:** Track top-performing traders by profit/loss, ROI, and win rate
- **Recent Buyers/Sellers:** Identify whale wallets buying or selling specific tokens
- **Performance Metrics:** View realized/unrealized PnL, total trades, and win rates

3. Token Intelligence

- **Token Screener:** Discover trending tokens with customizable filters
- **Flow Intelligence:** Analyze token flows across Smart Money, exchanges, whales, and fresh wallets
- **Holder Analysis:** View top token holders with labels and classifications
- **Market Activity:** Track DEX trades, transfers, and buy/sell pressure

4. Wallet Profiling

- **Deep Analysis:** Comprehensive wallet profiling including balance, transactions, PnL
 - **Classification:** Automatic labeling (Smart Money, Exchange, Whale, etc.)
 - **Related Wallets:** Discover first-degree connections
 - **Performance History:** View trading history, top trades, and counterparties
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API Endpoints

Smart Money API

```
GET /api/nansen/smart-money?chain=ethereum&type=all&timeframe=24h&limit=50
```

Parameters:

- `chain` : Blockchain network (ethereum, base, bnb, polygon, arbitrum, optimism, solana)
- `type` : Data type (netflows, holdings, trades, or all)
- `timeframe` : Time period (24h, 7d, 30d)
- `limit` : Number of results

Response:

```
{
  "success": true,
  "data": {
    "chain": "ethereum",
    "timeframe": "24h",
    "netflows": [...],
    "holdings": [...],
    "dexTrades": [...]
  },
  "source": "nansen",
  "timestamp": "2025-11-18T15:00:00.000Z"
}
```

Whale Activity API

```
GET /api/nansen/whale-activity?
chain=ethereum&tokenAddress=0x...&timeframe=24h&limit=50
```

Parameters:

- `chain` : Blockchain network
- `tokenAddress` : (Optional) Specific token to analyze
- `timeframe` : Time period
- `limit` : Number of results

Response:

```
{
  "success": true,
  "data": {
    "tokenAddress": "0x...",
    "chain": "ethereum",
    "timeframe": "24h",
    "transfers": [...],
    "whoBoughtSold": {...},
    "pnlLeaderboard": [...]
  },
  "source": "nansen",
  "timestamp": "2025-11-18T15:00:00.000Z"
}
```

Token Intelligence API

```
GET /api/nansen/token-intelligence?ac-
tion=screener&chain=ethereum&minMarketCap=10000000&limit=50
```

Actions:

- screener : Discover and filter tokens
- analyze : Deep analysis of specific token (requires tokenAddress)

Screener Parameters:

- chain : Blockchain network
- minMarketCap : Minimum market cap filter
- minVolume24h : Minimum 24h volume
- minPriceChange24h : Minimum price change percentage
- minSmartMoneyHolders : Minimum number of Smart Money holders
- limit : Number of results

Analyze Parameters:

- tokenAddress : Token contract address (required)
- chain : Blockchain network
- timeframe : Analysis period
- limit : Number of holders/transactions

Response (Screener):

```
{
  "success": true,
  "data": {
    "chain": "ethereum",
    "filters": {...},
    "tokens": [...],
    "count": 50
  },
  "source": "nansen",
  "timestamp": "2025-11-18T15:00:00.000Z"
}
```

Response (Analyze):

```
{
  "success": true,
  "data": {
    "tokenAddress": "0x...",
    "chain": "ethereum",
    "timeframe": "24h",
    "flowIntelligence": {...},
    "holders": [...],
    "whoBoughtSold": {...},
    "analysis": {
      "smartMoneyActivity": 1500000,
      "exchangeFlow": -2000000,
      "whaleActivity": 500000
    }
  },
  "source": "nansen",
  "timestamp": "2025-11-18T15:00:00.000Z"
}
```

Wallet Analysis API

GET `/api/nansen/wallet-analysis?address=0x...&chain=ethereum&detailed=true&timeframe=30d`

Parameters:

- address : Wallet address (required)
- chain : Blockchain network
- detailed : Boolean (true for full analysis, false for labels only)
- timeframe : Analysis period for PnL (30d, 90d, 180d)

Response (Quick):

```
{
  "success": true,
  "data": {
    "address": "0x...",
    "chain": "ethereum",
    "labels": ["Smart Money", "30D Smart Trader"],
    "entityName": "Example Fund",
    "isSmartMoney": true,
    "isExchange": false,
    "isWhale": true
  },
  "source": "nansen",
  "timestamp": "2025-11-18T15:00:00.000Z"
}
```

Response (Detailed):

```
{
  "success": true,
  "data": {
    "address": "0x...",
    "chain": "ethereum",
    "timeframe": "30d",
    "labels": [...],
    "entityName": "Example Fund",
    "classification": {
      "isSmartMoney": true,
      "isExchange": false,
      "isWhale": true
    },
    "balance": {...},
    "recentTransactions": [...],
    "performance": {
      "totalRealizedPnl": 5000000,
      "totalUnrealizedPnl": 2000000,
      "totalPnl": 7000000,
      "roi": 0.45,
      "winRate": 0.72,
      "totalTrades": 150
    },
    "relatedWallets": [...]
  },
  "source": "nansen",
  "timestamp": "2025-11-18T15:00:00.000Z"
}
```

Status Check API

```
GET /api/nansen/status
```

Response:

```
{
  "configured": true,
  "working": true,
  "timestamp": "2025-11-18T15:00:00.000Z"
}
```



AI Chatbot Integration

The DefiDash Agent chatbot now has **real-time access** to Nansen Smart Money intelligence. It can:

1. **Answer Questions About Smart Money Activity**
 - "What are Smart Money wallets buying right now?"
 - "Show me the top Smart Money holdings"
 - "Which whales are most profitable?"

2. Provide Token Analysis

- “Analyze this token address using Nansen data”
- “What’s the Smart Money sentiment on ETH?”
- “Show me token flow intelligence for [token]”

3. Profile Wallets

- “Is this wallet considered Smart Money?”
- “What’s the PnL of this address?”
- “Show me related wallets for [address]”

Example Chat Queries:

User: What are Smart Money wallets buying today?
 Agent: According to current Nansen data, Smart Money wallets (top 5,000 performers) are showing strong buying activity **in**:

- ETH: +\$15.2M net inflow from 847 Smart Money wallets
- LINK: +\$8.7M net inflow from 423 wallets
- [Additional data from live context]

User: Who are the top whale performers?
 Agent: Based on Nansen's PnL Leaderboard:

1. Wallet ABC...DEF: \$12.5M total PnL, 78% win rate, 245 trades
2. Wallet XYZ...123: \$9.8M total PnL, 82% win rate, 189 trades

[Additional data from live context]

Configuration

Environment Variables

`NANSEN_API_KEY=QpQGxaiUSPhf8oxAISrgStYW2lXg9r0J`

Supported Chains

- Ethereum (`ethereum`)
- Base (`base`)
- BNB Smart Chain (`bnb`)
- Polygon (`polygon`)
- Arbitrum (`arbitrum`)
- Optimism (`optimism`)
- Solana (`solana`)

Data Sources

Nansen’s Data Labeling System

Nansen applies unique, human-readable labels to hundreds of millions of blockchain addresses:

- **Smart Money Labels:** 30D/90D/180D Smart Trader, Fund

- **Entity Labels:** Exchange, Market Maker, Public Figure, Whale
- **Activity Labels:** Fresh Wallet, Top PnL Trader

Data Quality

- **Top 5,000 Wallets:** Ranked by realized profit and win rate
- **Real-time Updates:** Typical latency within seconds
- **Multi-Chain Coverage:** 25+ blockchain networks
- **Proprietary Intelligence:** Data not available elsewhere

Caching Strategy

The Nansen client implements intelligent caching:

- **Cache Duration:** 5 minutes
- **In-Memory Storage:** Fast access to recent queries
- **Automatic Refresh:** Expired cache entries are updated automatically
- **Manual Clear:** Use `clearNansenCache()` to force refresh



Security

- API key stored securely in environment variables
- Never exposed in client-side code
- Request timeout: 30 seconds
- Error handling with fallback messages



Use Cases

1. Trading Strategy Development

- Follow Smart Money signals for entry/exit points
- Identify tokens with strong institutional interest
- Monitor whale accumulation/distribution patterns

2. Risk Assessment

- Check if a wallet is labeled as Smart Money
- Analyze holder composition of tokens
- Track exchange inflows/outflows

3. Market Research

- Discover trending tokens before mainstream attention
- Analyze token flow patterns
- Study successful trader strategies

4. Portfolio Management

- Copy trades from top-performing wallets

- Monitor similar wallets to yours
 - Track performance metrics over time
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Future Enhancements

Planned Features

1. **Hyperliquid Integration:** Perpetual trading analytics
2. **DeFi Positions:** Track DeFi holdings across protocols
3. **Historical Data:** Access to historical Smart Money activity
4. **Custom Alerts:** Notifications for Smart Money movements
5. **Advanced Filters:** More granular token screening
6. **NFT Tracking:** Smart Money activity in NFT markets










API Expansion

- Jupiter DCA tracking on Solana
 - Cross-chain flow analysis
 - Enhanced wallet relationship mapping
 - Real-time WebSocket feeds
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Resources

- **Nansen Documentation:** <https://docs.nansen.ai/>
 - **API Endpoints:** <https://docs.nansen.ai/endpoints-overview>
 - **Use Cases:** <https://docs.nansen.ai/getting-started/use-case-templates/simple-use-cases>
 - **Support:** Check `/api/nansen/status` for API health
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Integration Status

-  Nansen API Client Library
 -  Smart Money Tracking Endpoints
 -  Whale Activity Endpoints
 -  Token Intelligence Endpoints
 -  Wallet Analysis Endpoints
 -  AI Chatbot Integration
 -  Real-time Data Feeds
 -  Multi-Chain Support
 -  Comprehensive Documentation
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Result

Smart Money Tracker now provides **institutional-grade blockchain intelligence** powered by Nansen, giving users the same data and insights used by professional crypto funds, market makers, and top traders.

Last Updated: November 18, 2025

Version: 1.0.0

Status:  Production Ready