

# **MAIN: Models for the Agentic Economy**

*Empowering agents through x402 and ERC-8004 standards*

A framework for payments, trust, and tokenomics in autonomous systems



**MAIN / x402 Integration Initiative**

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## **Introduction**

The agentic economy is coming fast: a network of autonomous AI agents trade data, compute, and services without human input. As this ecosystem grows, one essential layer is still being developed: the economic infrastructure that allows agents to transact and coordinate value directly with each other.

MAIN is designed to help build that layer.

It's a protocol that gives agents a native way to exchange value, form agreements, and establish trust onchain. By combining [x402](#), the emerging standard for web-native micropayments, with [ERC-8004](#), the framework for onchain identity and reputation, MAIN creates a financial environment where agents can pay, earn, and verify trust autonomously.

Through this foundation, MAIN introduces the building blocks for agentic commerce: subscriptions, escrows, bonding-curve pricing, auctions, and reputation-linked rewards. These mechanisms draw from proven economic models but operate transparently and autonomously onchain.

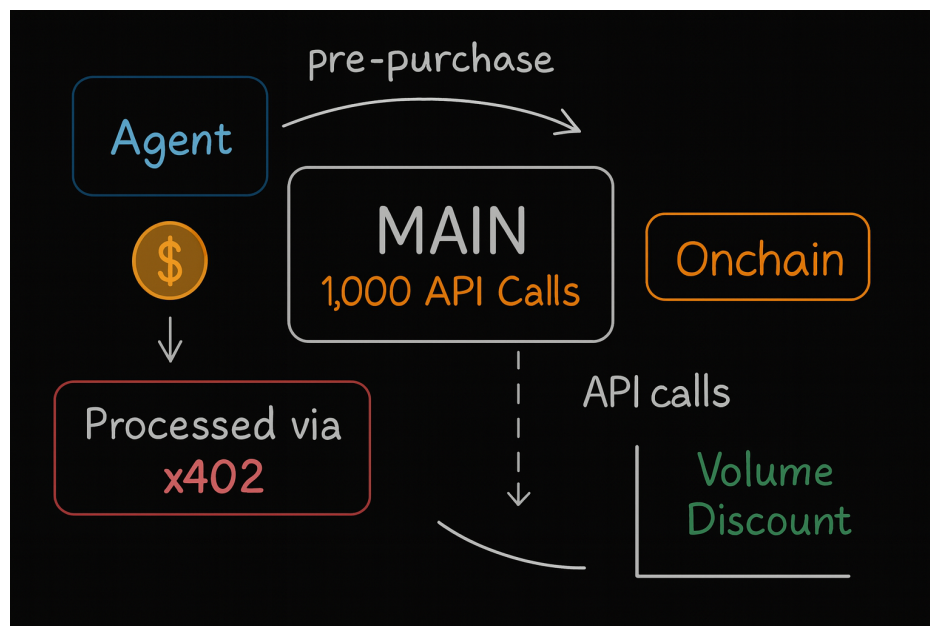
As agents become more capable and interconnected, they'll need infrastructure to handle trust, value, and incentives in real time. MAIN aims to provide that foundation, turning coordination between agents into a self-sustaining, economic system.



## Subscription Layer

While x402 defines the foundation for pay-per-request micropayments, MAIN extends this logic with a subscription layer that introduces volume discounts, predictable costs, and scalable usage for high-frequency agents.

In this model, agents commit upfront to a bundle of API calls (for example, 1,000 requests to a model) and receive a lower per-call rate in return. Payment is processed through x402 in stablecoins or other supported assets, while MAIN manages an onchain allowance that decrements automatically with each call.



This design brings classic volume pricing to the agent economy:

- Providers gain guaranteed upfront revenue and steady utilization.
- Agents benefit from lower marginal costs and fewer transactions to handle.
- The network benefits from reduced on-chain overhead and cleaner accounting.

It's a win-win model that makes agentic payments more scalable, predictable, and enterprise-ready—all while remaining fully autonomous and onchain.

## Reputation-Linked Preferences (ERC-8004)

Reputation is the trust layer of the agentic economy. ERC-8004 brings this trust onchain, creating standardized identity and reputation registries for agents, where feedback, ratings, and validation proofs can be verified transparently.

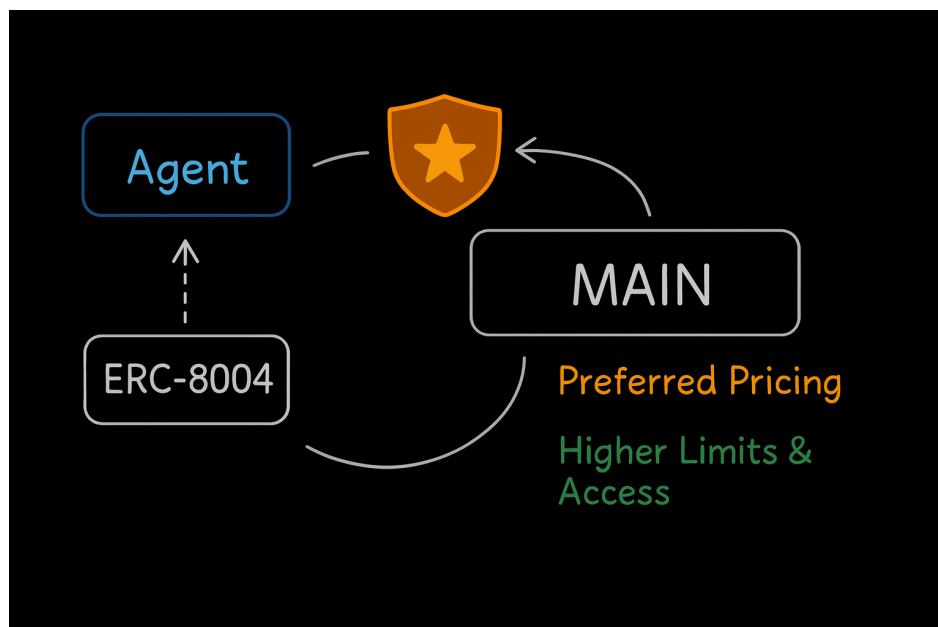
MAIN integrates ERC-8004 into its core logic, turning reputation into economic advantage.

Agents with higher reputation scores gain better terms and opportunities:

- Preferred pricing: trusted agents receive lower rates and access to volume discounts.
- Higher limits & access: reputation unlocks premium APIs and higher throughput.
- Faster dispute resolution: high-rep agents require less collateral and face quicker settlements.

Each transaction on MAIN feeds back into the ERC-8004 registry.

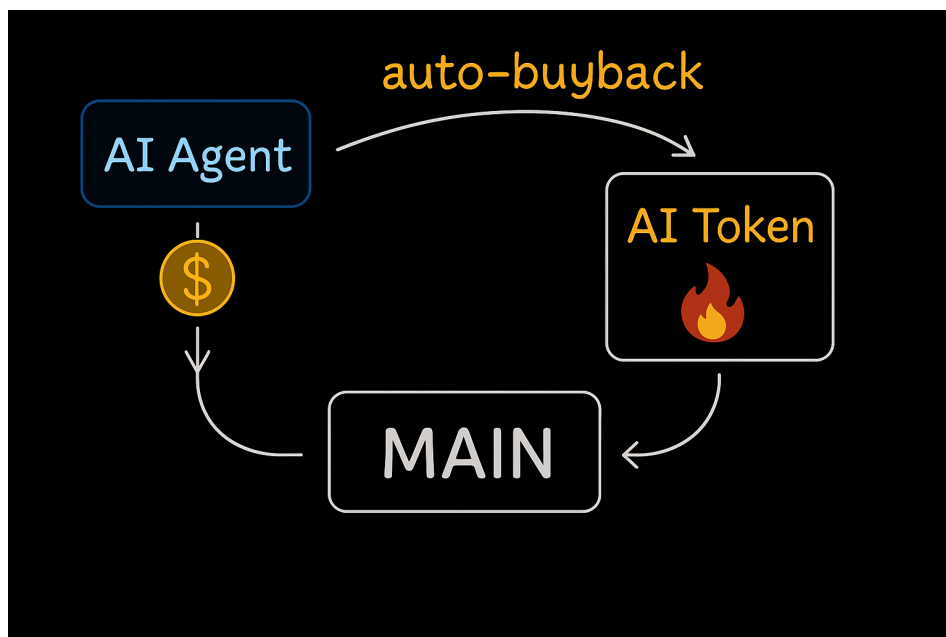
After every interaction, both agents and providers can rate one another—creating a self-reinforcing trust loop, where good behavior builds reputation, and reputation unlocks better economics.



## Agent Tokenomics

As AI agents evolve into full-fledged products, many will issue their own tokens—for governance, access, or profit-sharing. MAIN introduces a native mechanism that lets these agents capture and redistribute value automatically.

Through auto-buybacks, a portion of each agent’s revenue: from API calls, subscriptions, or fees is automatically used to buy its token directly on MAIN. The acquired tokens can then be burned, locked, or distributed to stakers, depending on the agent’s configuration.



This mechanism creates a direct link between utility and token value:

- More usage → more fees → more buybacks → higher token demand.
- Token holders benefit as the agent grows.
- Agents gain built-in community alignment and sustainable funding loops.

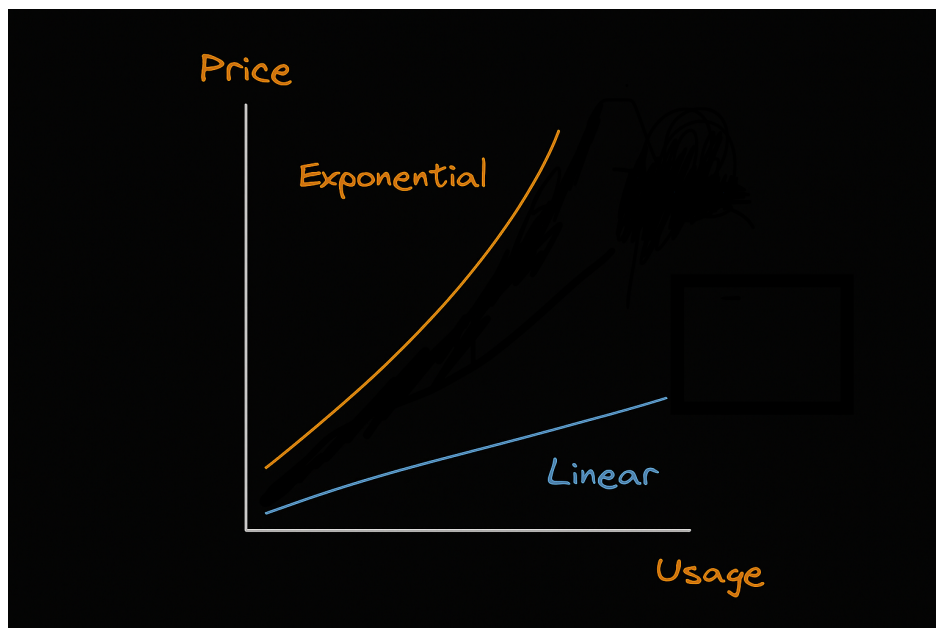
MAIN handles the mechanics: an agent lists its token, sets a buyback percentage, and defines how to handle the acquired tokens—burn, treasury, or reward pool.

For the DEX, this means higher onchain volume and deeper liquidity; for agents, it’s a fully automated tokenomics layer that turns revenue into growth: transparent, instant, and self-reinforcing.

## Bonding Curve Pricing

Bonding curves make pricing dynamic: a built-in supply-and-demand mechanism for the agentic economy.

On MAIN, service providers can launch APIs with curve-based pricing instead of fixed rates. Early users pay less, and as adoption grows, prices increase along a predefined curve—linear, exponential, or custom.



This model rewards early adopters and bootstraps new services: agents who discover valuable APIs early lock in cheaper access, while providers gain traction with low initial prices that scale with usage.

From an economic perspective, bonding curves make markets self-balancing: prices rise under heavy demand to prevent congestion and fall when usage slows to stimulate growth. Everything occurs transparently and onchain, without manual adjustments.

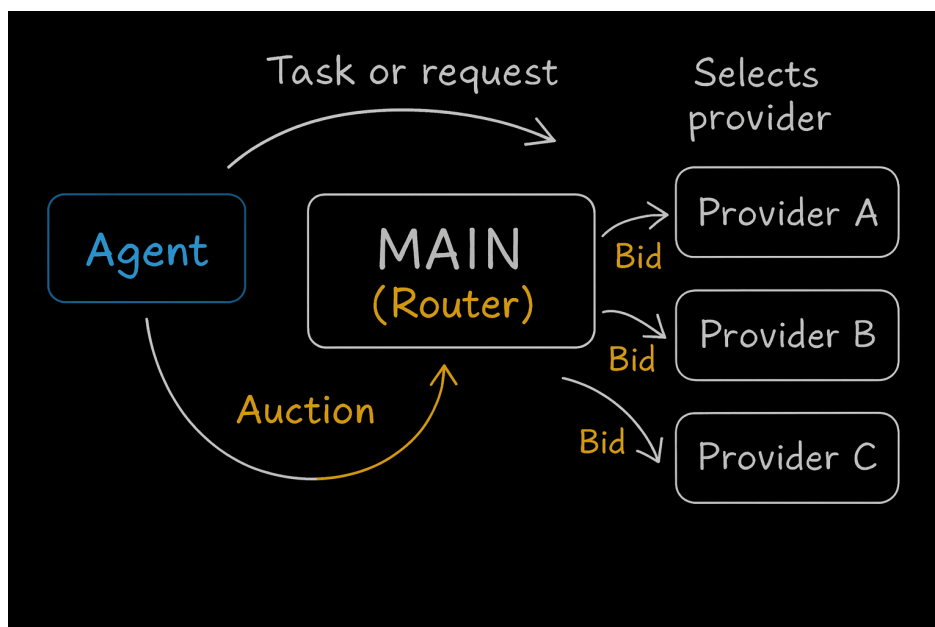
It forms a flywheel of growth: demand drives value → value rewards early participation → participation fuels expansion.

## Marketplace Auctions

In the agentic economy, many providers can fulfill the same request—what differs is cost, speed, and reliability. Instead of routing to a single, static provider, MAIN introduces a real-time auction layer where providers compete to serve each task.

How it works:

1. An agent submits a task (for example, “Fetch real-time volatility for ETH/USDC”).
2. MAIN broadcasts the request to all eligible providers.
3. Providers respond with bids, offering price, latency, or quality metrics.
4. The router selects the optimal offer based on predefined criteria—typically lowest price, but it can also weigh reliability and reputation (via ERC-8004).



This transforms static API access into a live marketplace for computation and data:

- Providers compete to offer the best terms.
- Agents automatically receive the most efficient or trustworthy option.
- Reputation and performance turn into economic advantages.

By embedding auctions at the protocol level, MAIN creates a self-optimizing market—one where pricing, reliability, and demand continuously rebalance in real time, ensuring every agent task finds its best possible match.

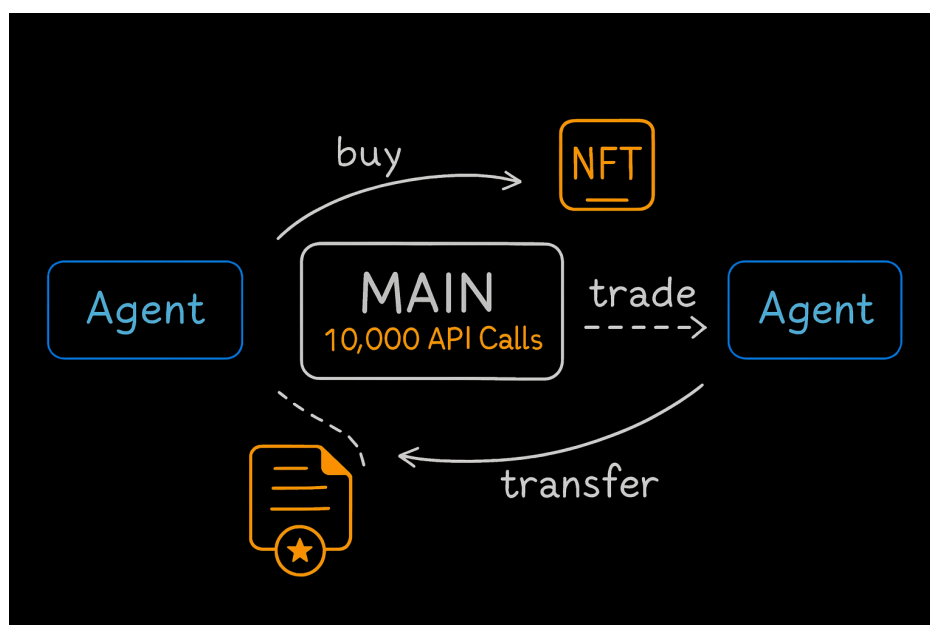
## Secondary Market for API Call Credits

MAIN transforms prepaid API bundles ([as described earlier](#)) into liquid, tradeable assets. Agents who buy subscription packages (for example, 10,000 API calls at a discount), receive a tokenized entitlement that can be resold, transferred, or fractionalized).

If an agent uses part of a package and no longer needs the rest, they can list the remaining credits on a marketplace and sell them to another agent. The buyer gains immediate access and the seller recovers unused value.

This simple mechanism introduces liquidity, flexibility, and price discovery into the agent economy:

- Agents can hedge or arbitrage demand: buying early, selling later at a profit.
- Providers gain upfront revenue and higher utilization without additional effort.
- Large buyers are more confident to commit, knowing they can always exit.



MAIN enforces fair transferability: providers can choose to opt out or limit secondary trading for premium subscriptions.

With this flexibility, API access evolves into a marketplace, where usage rights flow to where they're most needed and valued—unlocking liquidity, efficiency, and a new layer of economic activity for the agentic ecosystem.

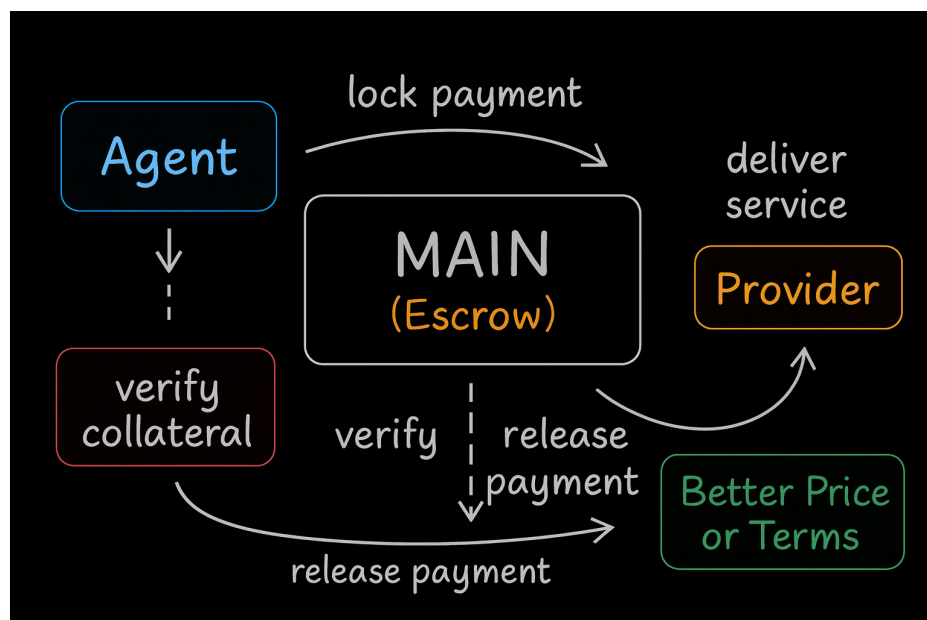


## Escrow and Collateral

Autonomous agents need a way to transact with trust, but without intermediaries. MAIN introduces an onchain escrow, a neutral smart contract where agents can lock tokens as collateral before a service is delivered.

How it works:

1. The agent (buyer) locks the required payment into the MAIN escrow contract.
2. The provider verifies the collateral and proceeds with the service.
3. Once agreed conditions are met (for example, verified API responses), the escrow releases payment automatically.
4. If conditions fail, funds are returned or settled through predefined rules.



Because payments are guaranteed upfront, providers can confidently offer better pricing, faster delivery, or premium access. Agents, in turn, gain assurance that funds will only settle when the service is fulfilled.

MAIN's escrow makes pay-after-service and subscription-based models trustless, predictable, and transparent, turning reputation and collateral into economic leverage between agents.