

3.2 Pi-Orchestrator

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The Pi-Orchestrator (`~/system/kernel/pi-orchestrator.js`) is the **central brain** of the ALAI system. It's a daemon that runs 24/7.

What It Does

Every **30 seconds**, the orchestrator:

1. **Polls MC** for the next eligible task (`mc.js next-task`)
2. **Skips** tasks matching safety patterns (CEO decisions, regulated services)
3. **Checks retry cap** — max 3 attempts per task (prevents infinite loops)
4. **Classifies** the task (complexity 1-5, domain, type) using Ollama
5. **Selects model** based on classification tier
6. **Checks capacity** — worker pool limits per host
7. **Claims the task** (assigns to pi-orchestrator, sets status to started)
8. **Builds prompt** — injects company soul, blueprints, task context
9. **Executes** via the selected pipeline (ollama-tool → simple fallback → llama-server)
10. **Quality gate** — checks response length, detects placeholders, escalates if needed
11. **Creates proof-of-work** — writes GOTCHA file + verify dir
12. **Completes** — marks task done in MC, posts to Slack, feeds HiveMind
13. **Advances pipeline** — triggers next pipeline stage if applicable

Configuration

`~/system/config/pi-orchestrator-config.json`:

- **Concurrency:** FORGE: 2, ANVIL: 3, Claude: 2 (total max: 6 parallel workers)
- **Timeouts:** Tier 1: 60s, Tier 2: 120s, Tier 3: 300s, Tier 4: 600s
- **Quality gate:** Min response lengths, placeholder detection, max 1 escalation
- **Safety patterns:** CEO, DECISION, BankID, Vipps, Finanstilsynet, TENDER

Execution Pipelines

Pipeline	How It Works
<code>ollama-tool</code>	Ollama with tool-use (read/write files, run commands) — preferred
<code>ollama-simple</code>	Ollama text-only (fallback when tool agent fails)
<code>llama-tool</code>	Kimi K2.5 via llama-server with tool-use wrapper
<code>llama-server</code>	Kimi K2.5 raw text completion (fallback)
<code>claude-cli</code>	Claude Code CLI for client-facing/critical work
<code>human-queue</code>	Queued for human — Alem reviews manually

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