AGOTHE API

Constraint Intelligence at Scale

Embed constraint field analysis, scenario modeling, and collapse prediction into any application via REST API.

24+	<200ms	99.9%	3
ENDPOINTS	AVG LATENCY	UPTIME SLA	PLANS

- **Constraint Field Scanning**
  Real-time entity analysis with multi-domain scoring
- **Signal Intelligence**
  Continuous monitoring of constraint violations across domains
- **Scenario Analysis**
  Hamiltonian decision mapping with probability distributions
- **Webhook Delivery**
  Async results pushed to your endpoint with retry logic

```
curl -X POST https://api.agothe.ai/v1/scan \
  -H 'Authorization: Bearer ag_live_...' \
  -d '{"entity": "TSLA", "depth": "full"}'
```

PRICING

DEVELOPER	STUDIO	ENTERPRISE
$29 /mo	$79 /mo	$297 /mo
1,000 calls/mo	10,000 calls/mo	Unlimited calls

Endpoint Showcase

Three core endpoints powering constraint intelligence. Base URL: https://api.agothe.ai

POST /v1/scan

Submit an entity for multi-domain constraint field scanning. Returns aggregate and per-domain scores.

REQUEST BODY

```
{
  "entity": "TSLA",
  "scan_type": "full",
  "domains": [
    "supply_chain",
    "capital",
    "regulatory"
  ],
  "webhook_url": "https://..."
}
```

RESPONSE

```
{
  "scan_id": "scn_8f3k...",
  "entity": "TSLA",
  "delta_H": 0.61,
  "status": "CAUTION",
  "domains": {
    "supply_chain": 0.45,
    "capital": 0.72,
    "regulatory": 0.58
  },
  "cascade_risk": "18d"
}
```

Rate: Developer 100/hr | Studio 1,000/hr | Enterprise unlimited | Cost: $0.03 per scan

GET /v1/signals

Retrieve latest constraint violation signals for a domain. Filter by severity, timeframe, and entity.

QUERY PARAMETERS

```
# Query Parameters
?domain=technology
&severity=critical
&since=2026-03-01
&limit=25
```

RESPONSE

```
{
  "signals": [
    {
      "id": "sig_9a2...",
      "domain": "technology",
      "severity": "critical",
      "delta_H_impact": 0.12
    }
  ],
  "total": 47
}
```

Rate: Developer 500/hr | Studio 5,000/hr | Enterprise unlimited | Cost: $0.005 per call

POST /v1/scenario

Run a Hamiltonian scenario analysis. Maps decision branches with probability distributions and constraint impacts.

REQUEST BODY

```
{
  "decision": "Acquire TargetCo",
  "branches": 20,
  "horizon": "90d",
  "constraints": [
    "regulatory",
    "capital"
  ]
}
```

RESPONSE

```
{
  "scenario_id": "sce_4b1...",
  "paths": [
    {
      "label": "Approve+Growth",
      "probability": 0.34,
      "delta_H": 0.41,
      "revenue_impact": "+$2.1M"
    }, ...
  ],
  "optimal_path": 0
}
```

Rate: Developer 10/hr | Studio 100/hr | Enterprise 1,000/hr | Cost: $0.50 per analysis

Integration Examples

Complete scan request, response handling, and result parsing in three languages.

Python requests library

```python
import requests

API_KEY = "ag_live_sk_..."
BASE    = "https://api.agothe.ai"

# 1. Submit a constraint field scan
resp = requests.post(
    f"{BASE}/v1/scan",
    headers={"Authorization": f"Bearer {API_KEY}"},
    json={"entity": "TSLA", "scan_type": "full"}
)

# 2. Parse the response
scan = resp.json()
print(f"Score: {scan['delta_H']}")
print(f"Status: {scan['status']}")

# 3. Check domain breakdowns
for domain, score in scan["domains"].items():
    flag = "!!" if score > 0.52 else "ok"
    print(f"  {domain}: {score:.2f} [{flag}]")
```

```
OUTPUT:   Score: 0.61  |  Status: CAUTION  |  supply_chain: 0.45 [ok]  capital: 0.72 [!!]  regulatory: 0.58 [!!]
```

JavaScript fetch API

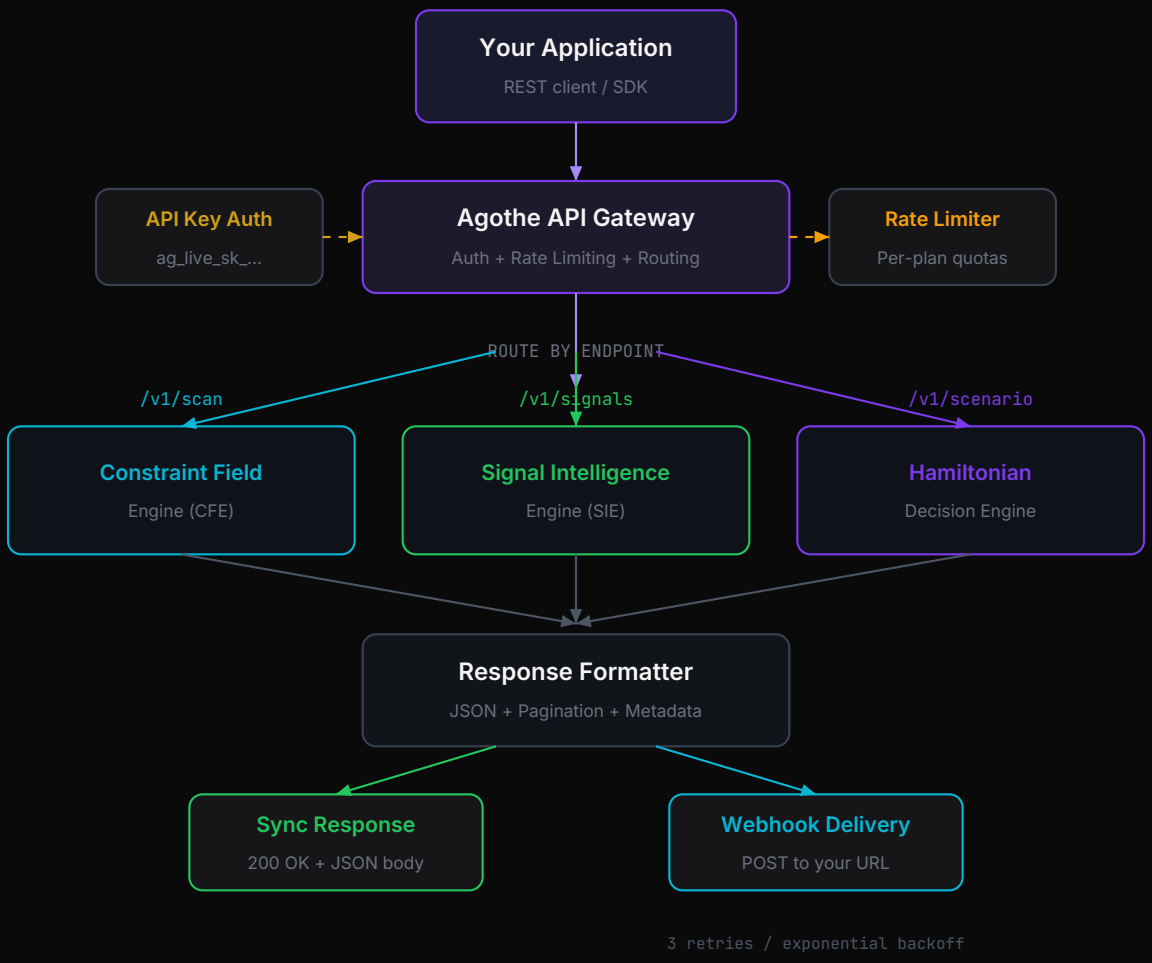
```javascript
const API_KEY = "ag_live_sk_...";
const BASE = "https://api.agothe.ai";

// Submit scan and parse response
const res = await fetch(`${BASE}/v1/scan`, {
  method: "POST",
  headers: {
    "Authorization": `Bearer ${API_KEY}`,
    "Content-Type": "application/json"
  },
  body: JSON.stringify({
    entity: "TSLA", scan_type: "full"
  })
});

const scan = await res.json();
console.log(`delta_H: ${scan.delta_H}`);
```

cURL command line

```bash
# Full scan request with response parsing
curl -s -X POST https://api.agothe.ai/v1/scan \
  -H 'Authorization: Bearer ag_live_sk_...' \
  -H 'Content-Type: application/json' \
  -d '{"entity":"TSLA","scan_type":"full"}' \
  | jq '.delta_H, .status, .domains'
# => 0.61  "CAUTION"  {...}
```

System Architecture

Request lifecycle, authentication, and webhook delivery flow.



Authentication

All requests require an API key in the Authorization header:

```
Authorization: Bearer ag_live_sk_...
```

Prefix: ag_live_sk_ (production)
Prefix: ag_test_sk_ (sandbox)
Rotate keys in the dashboard

Rate Limits by Plan

	/v1/scan	/v1/signals	/v1/scenario	Webhooks
Developer $29/mo	100/hr	500/hr	10/hr	5 endpoints
Studio $79/mo	1,000/hr	5,000/hr	100/hr	25 endpoints
Enterprise $297/mo	Unlimited	Unlimited	1,000/hr	Unlimited

1. API design patterns: Stripe API Reference — docs.stripe.com/api
2. Constraint Field Engine (CFE): Agothean Engine Codex — notion.so/agothe
3. Scenario analysis methodology: Hamiltonian Decision Mapping — Agothe Decision Sciences