

OPA: General-purpose Policy Engine

Declarative Policy Language (Rego)

- Can user X do operation Y on resource Z?
- What invariants does workload W violate?
- Which records should bob be allowed to see?
- Language features
 - 150+ built-in functions: JWTs, date/time, CIDR math ,etc.
 - Context-aware policies (e.g., Kubernetes, AD, entitlements, etc.)
 - Composition & delegation
 - Performance optimizations (Rule Indexing, Partial Evaluation, etc.)

Library (Go), sidecar/host-level daemon, WebAssembly

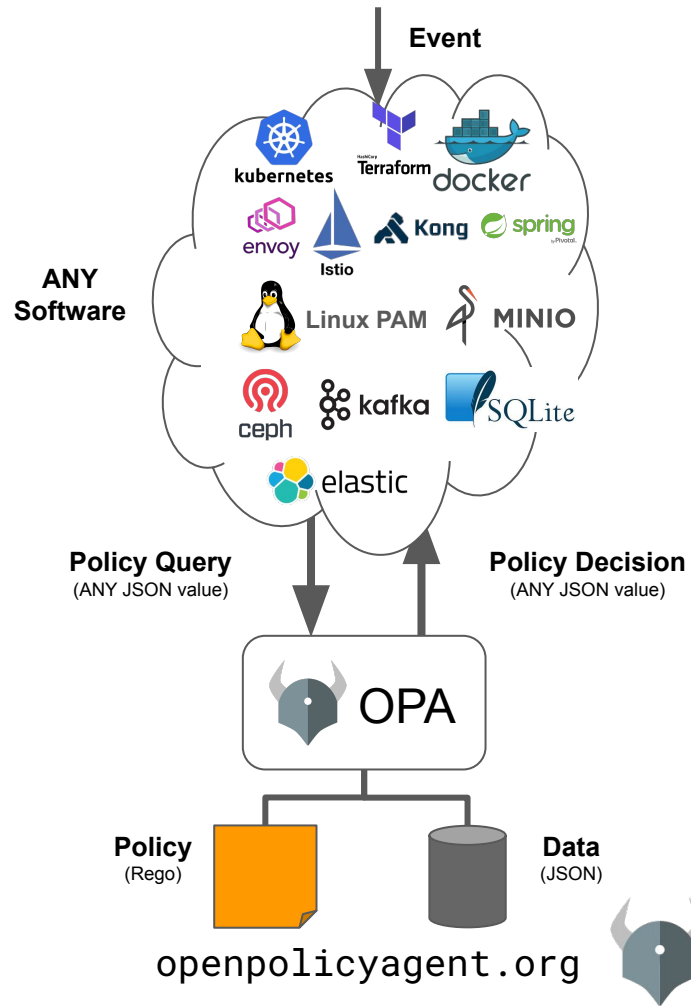
- Policy and data are cached locally (in-memory, disk)
- Zero decision-time dependencies

Management APIs for control & observability

- Bundle service API for sending policy & data to OPA
- Status service API for receiving status from OPA
- Log service API for receiving audit log from OPA
- Discovery API for dynamic policy discovery & distribution
- Support for 3rdparty APIs: Prometheus, OpenTelemetry, etc.

Tooling to build, test, and debug policy

- opa run, opa test, opa fmt, opa deps, opa check, etc.
- IDE extensions (VS Code & IntelliJ), Tracing, Profiling, etc.
- play.openpolicyagent.org - interactive evaluation, examples, etc



Project Roadmap

[Issues](#) labelled **good first issue** or **help-wanted** are good candidates for first contribution.

2024 Q2

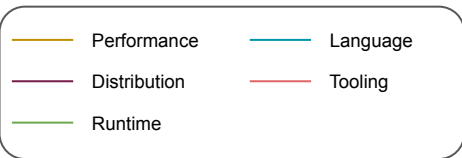
- [Relax config check w/ Discovery](#)
- [Schema Validation for Data](#)
- [Warn on unknown config options](#)
- [Test Result Diffs](#)
- [Stream opa test results](#)
- [OPA Usability Issues](#)
- [OPA v1.0](#)

2024 Q3

- [Rule Tracing](#)
- [Decision Log Perf Predictability](#)
- [http.send improvements](#)
- [Optimize Flag on Tooling](#)
- [OPA Server Cache config](#)
- [OPA v1.0](#)

2024 Q4/2025 Q1

- [Ellipsis Operator](#)
- [Dependency Management](#)
- [Faster loading of dependency-free bundles](#)
- [Undefined Handling](#)
- [Index Multiple Expressions](#)
- [OPA v1.0](#)



See github.com/open-policy-agent/confest and github.com/open-policy-agent/gatekeeper for subproject roadmaps



Project Roadmap

[Issues](#) labelled **good first issue** or **help-wanted** are good candidates for first contribution.

2023 Q2

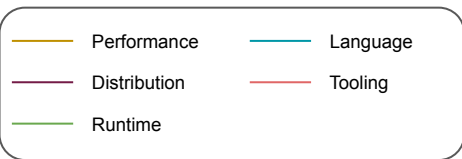
2023 Q3

2023 Q4/2024 Q1

- [Decision Log Perf Predictability](#)
- [Ellipsis Operator](#)
- [Authn plugins for OCI downloader](#)
- [Refs Heads with multiple vars](#)
- [Watch mode for OPA test command](#)
- [Honor default keyword on functions](#)

- [Optimize Flag on Tooling](#)
- [Undefined Handling](#)
- [Index Multiple Expressions](#)
- [Relax config check w/ Discovery](#)
- [PGP sign verification built-ins](#)
- [http.send improvements](#)

- [OPA v1.0](#)
- [Test Result Diffs](#)
- [Rule Tracing](#)
- [Schema Validation for Data](#)
- [Warn on unknown config options](#)



See github.com/open-policy-agent/confest and github.com/open-policy-agent/gatekeeper for subproject roadmaps



Project Roadmap

See issue [#845](#) for integration ideas.

[Issues](#) labelled [good first issue](#) or [help-wanted](#) are good candidates for first contribution.

2022 Q2

- [Function Mocking](#)
- [GraphQL built-ins](#)
- [E2E Benchmark Tooling](#)
- [Built-in Function Metadata](#)
- [Distribution via OCI](#)

2022 Q3

- [Hierarchical rule heads](#)
- [Ellipsis Operator](#)
- [Decision replay w/ ND built-ins](#)
- [Optimize Flag on Tooling](#)
- [Test Result Diffs](#)

2022 Q4/2023 Q1

- [Undefined Handling](#)
- [Dependency Management](#)
- [Complexity Analysis](#)
- [Rule Tracing](#)
- [Loop Invariants](#)
- [Index membership checks](#)
- [Index Multiple Expressions](#)
- [Schema Validation for Data](#)

See github.com/open-policy-agent/confest and github.com/open-policy-agent/gatekeeper for subproject roadmaps

