Agentics Day:
MCP + Agents
NORTH AMERICA

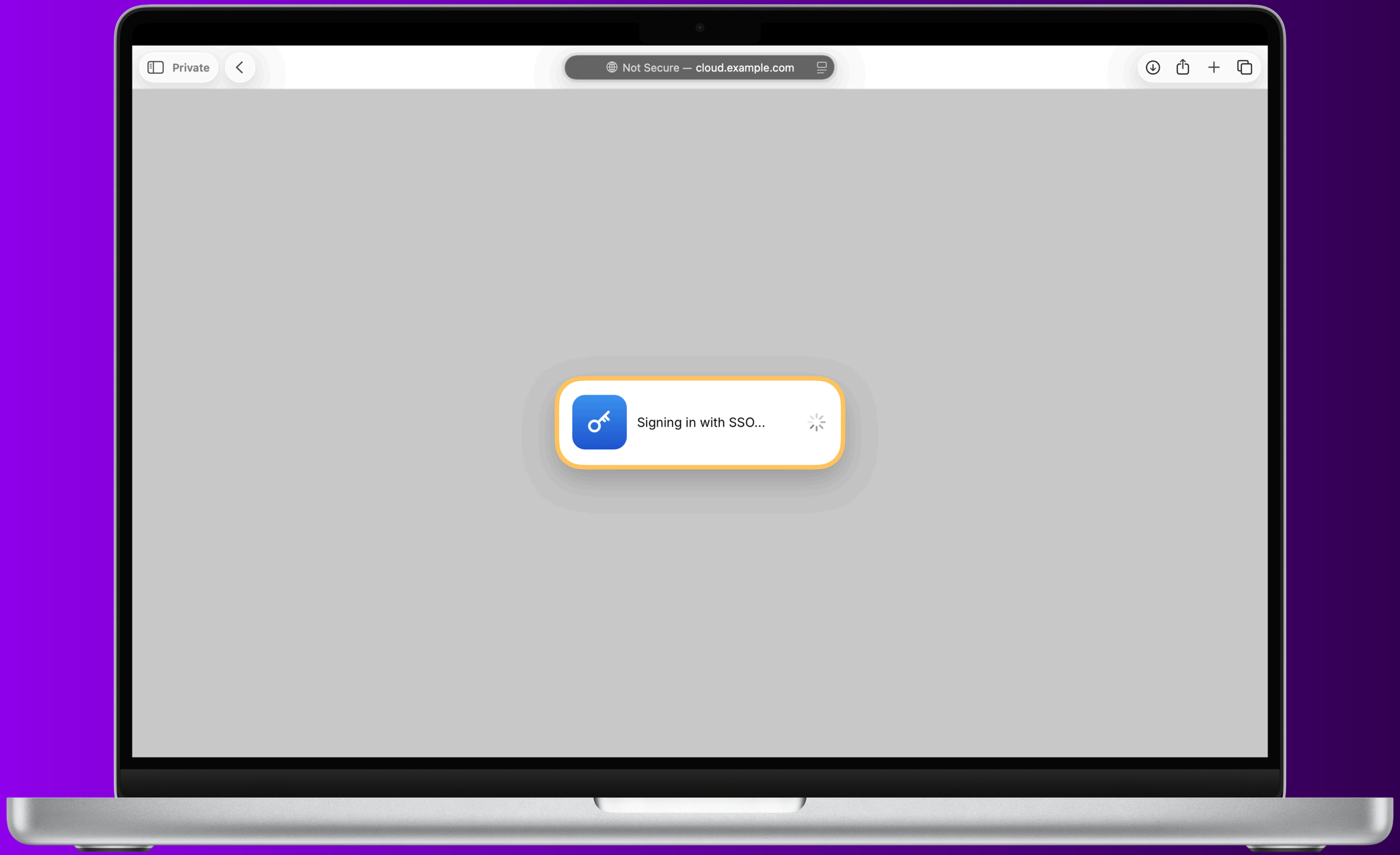
Unlocking Enterprise Knowledge for AI Agents at Scale with MCP

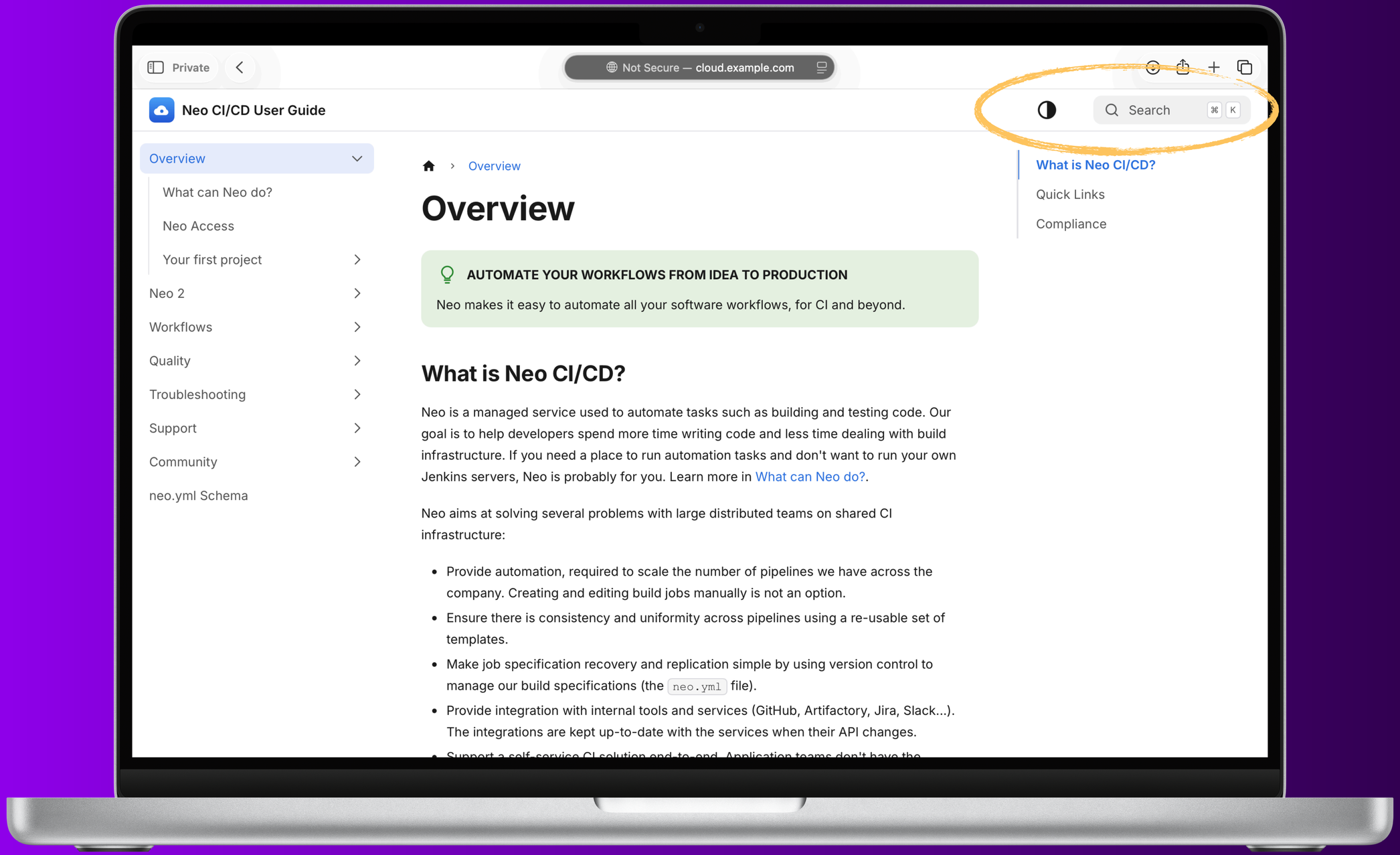
Nirav Jain, Spandana Balumuri

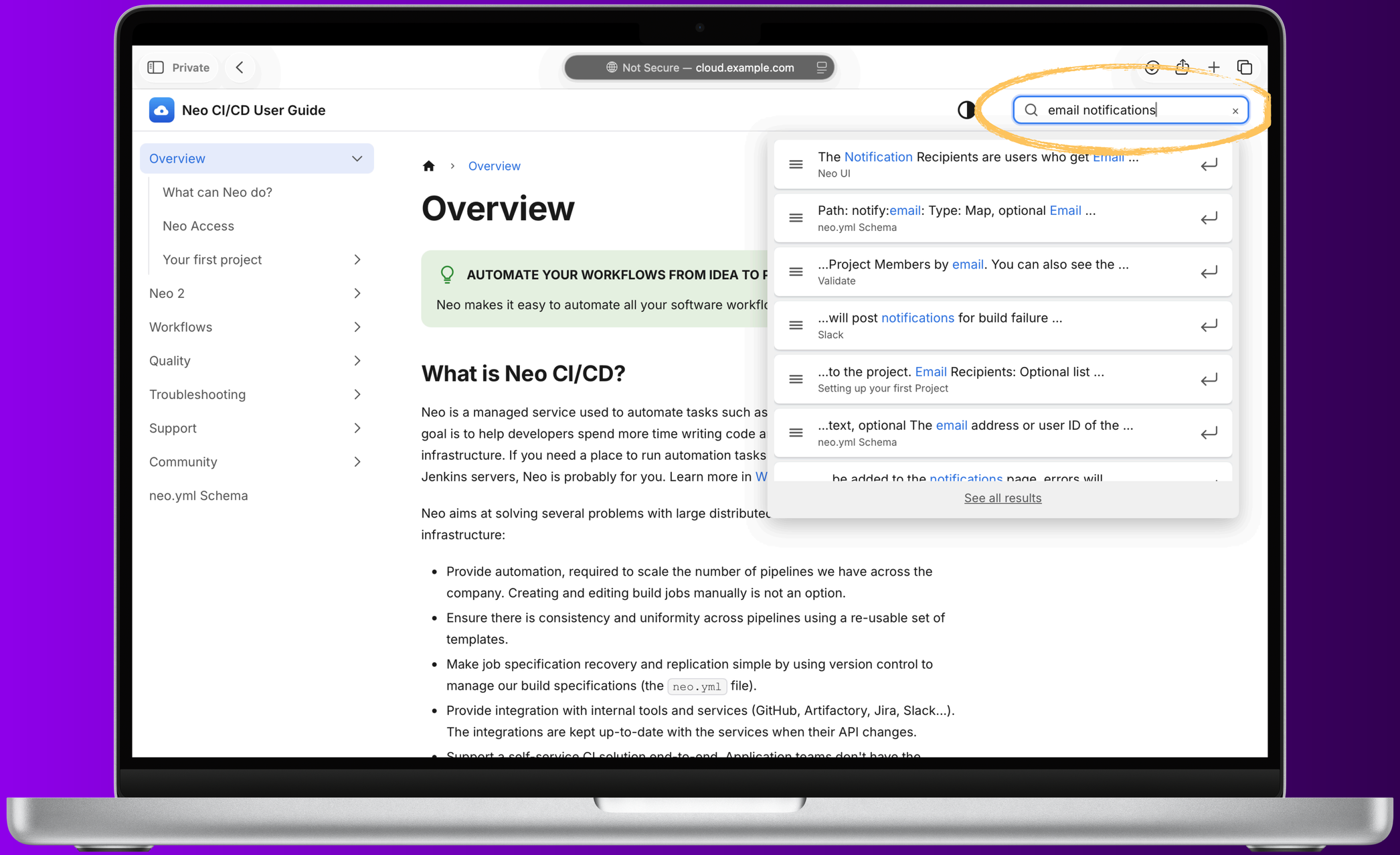
Apple

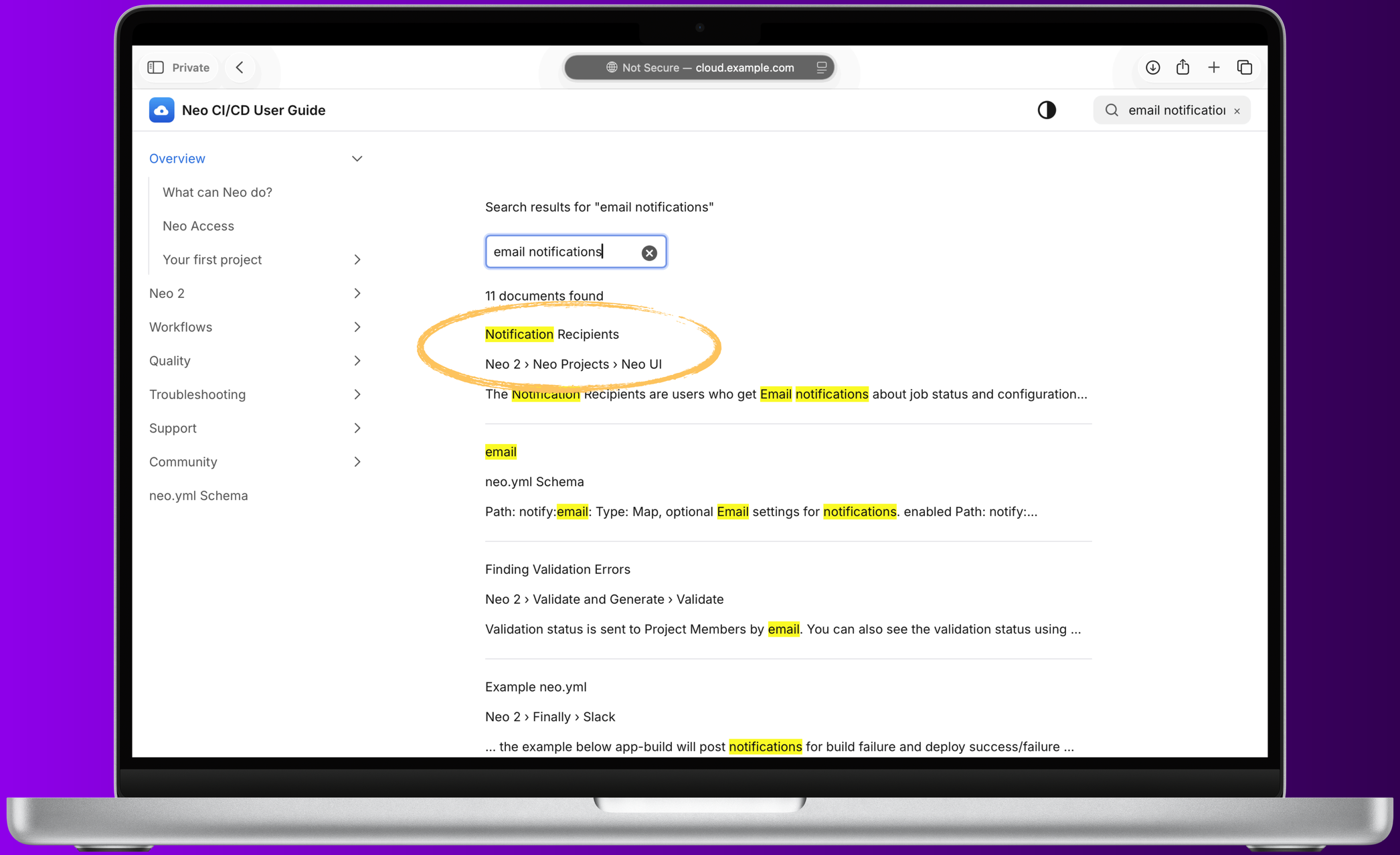
“Add email notifications for CI / CD build failures using Neo”

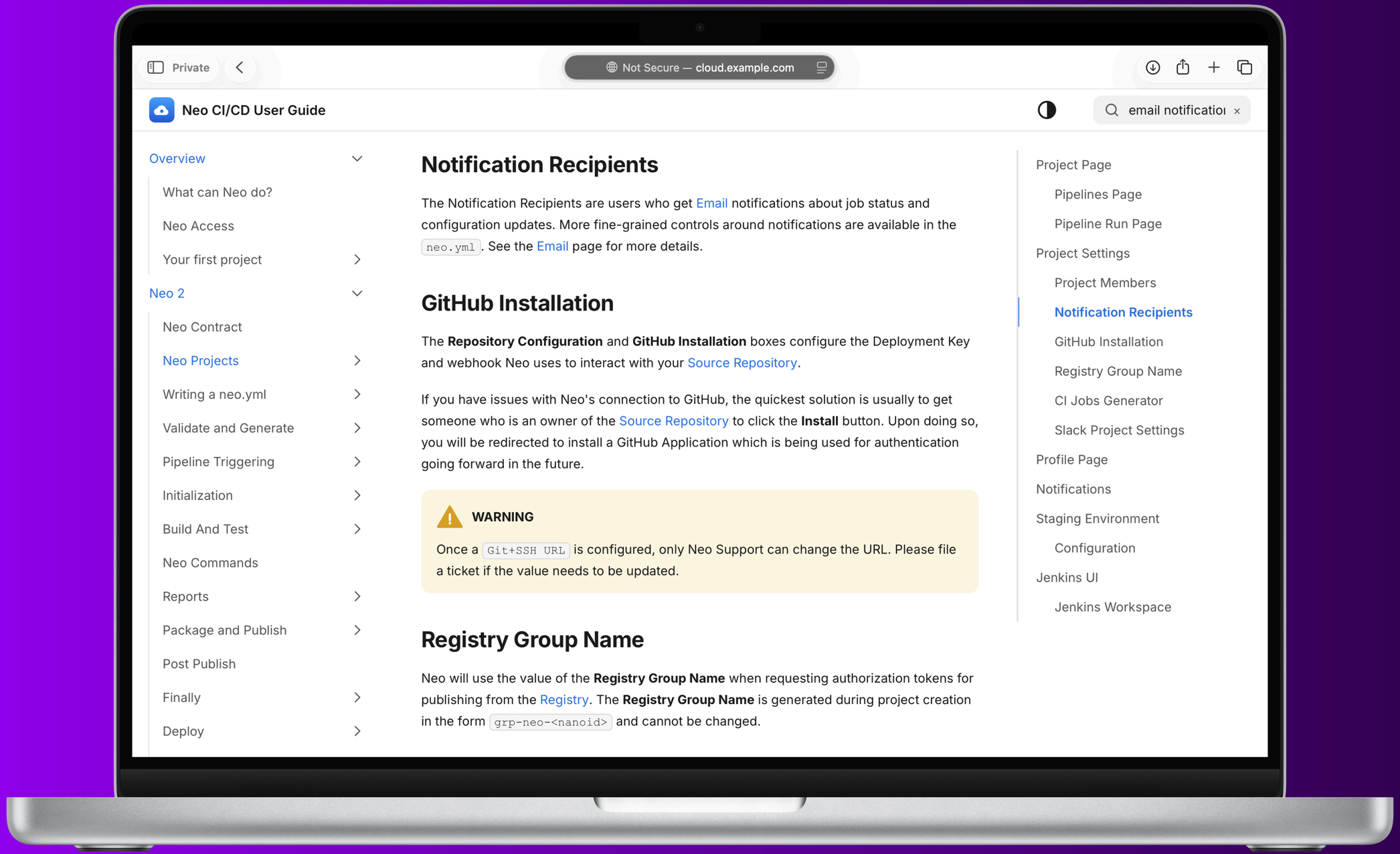


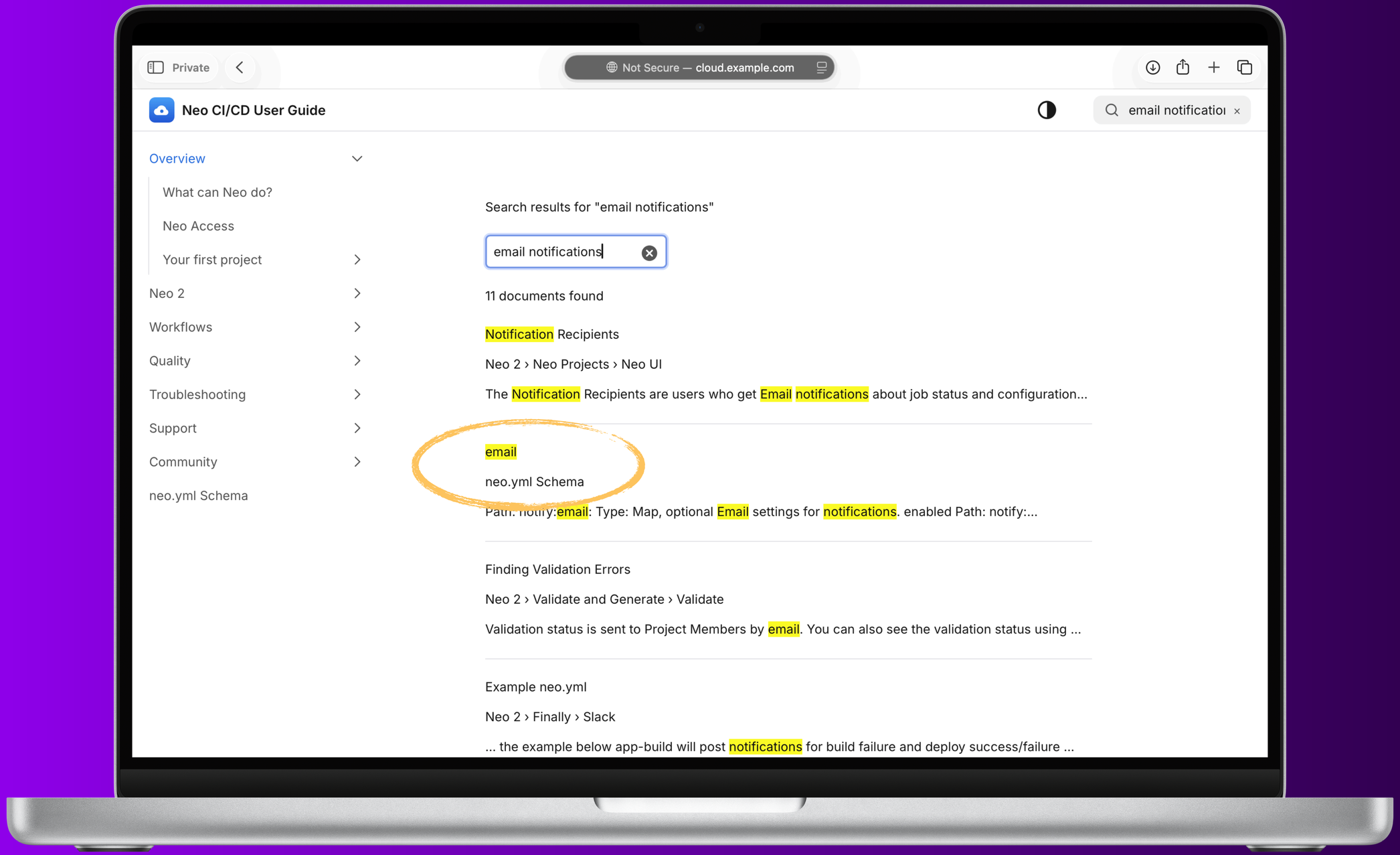

Private
Not Secure — cloud.example.com
Signing in with SSO...

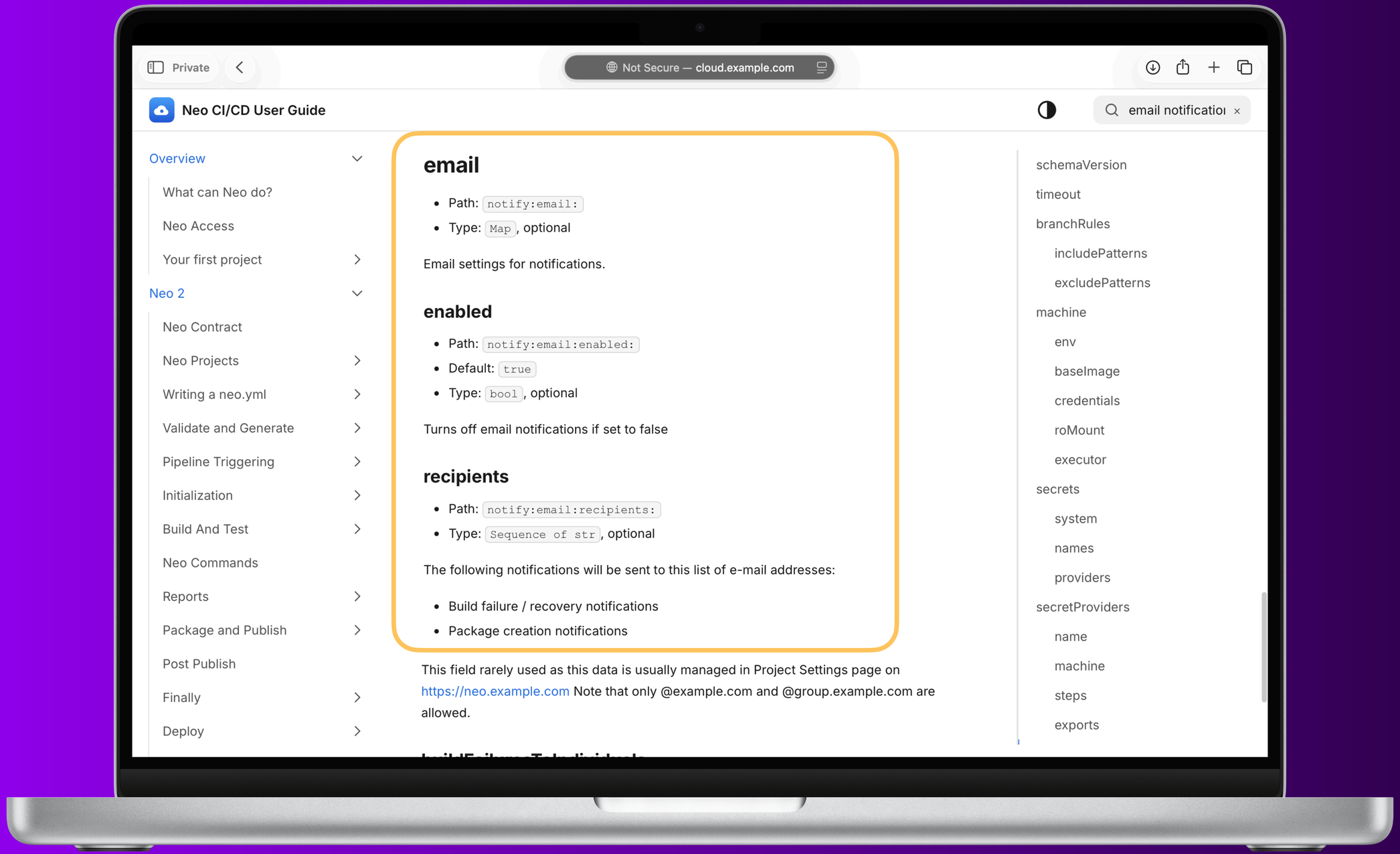

Private
Not Secure — cloud.example.com
Neo CI/CD User Guide
Search
⌘ K
Overview
What can Neo do?
Neo Access
Your first project
Neo 2
Workflows
Quality
Troubleshooting
Support
Community
neo.yml Schema
Overview
Overview
AUTOMATE YOUR WORKFLOWS FROM IDEA TO PRODUCTION
Neo makes it easy to automate all your software workflows, for CI and beyond.
What is Neo CI/CD?
Neo is a managed service used to automate tasks such as building and testing code. Our goal is to help developers spend more time writing code and less time dealing with build infrastructure. If you need a place to run automation tasks and don't want to run your own Jenkins servers, Neo is probably for you. Learn more in What can Neo do?.
Neo aims at solving several problems with large distributed teams on shared CI infrastructure:
Provide automation, required to scale the number of pipelines we have across the company. Creating and editing build jobs manually is not an option.
Ensure there is consistency and uniformity across pipelines using a re-usable set of templates.
Make job specification recovery and replication simple by using version control to manage our build specifications (the neo.yml file).
Provide integration with internal tools and services (GitHub, Artifactory, Jira, Slack...). The integrations are kept up-to-date with the services when their API changes.
What is Neo CI/CD?
Quick Links
Compliance


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neo.yml Schema
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Overview
AUTOMATE YOUR WORKFLOWS FROM IDEA TO
Neo makes it easy to automate all your software workflo
What is Neo CI/CD?
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goal is to help developers spend more time writing code a
infrastructure. If you need a place to run automation tasks
Jenkins servers, Neo is probably for you. Learn more in W
Neo aims at solving several problems with large distributed
infrastructure:
Provide automation, required to scale the number of pipelines we have across the company. Creating and editing build jobs manually is not an option.
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Make job specification recovery and replication simple by using version control to manage our build specifications (the neo.yml file).
Provide integration with internal tools and services (GitHub, Artifactory, Jira, Slack...). The integrations are kept up-to-date with the services when their API changes.
The Notification Recipients are users who get Email ...
Neo UI
Path: notify:email: Type: Map, optional Email ...
neo.yml Schema
...Project Members by email. You can also see the ...
Validate
...will post notifications for build failure ...
Slack
...to the project. Email Recipients: Optional list ...
Setting up your first Project
...text, optional The email address or user ID of the ...
neo.yml Schema
See all results


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neo.yml Schema
Search results for "email notifications"
email notifications
11 documents found
Notification Recipients
Neo 2 › Neo Projects › Neo UI
The Notification Recipients are users who get Email notifications about job status and configuration...
email
neo.yml Schema
Path: notify:email: Type: Map, optional Email settings for notifications. enabled Path: notify:...
Finding Validation Errors
Neo 2 › Validate and Generate › Validate
Validation status is sent to Project Members by email. You can also see the validation status using ...
Example neo.yml
Neo 2 › Finally › Slack
... the example below app-build will post notifications for build failure and deploy success/failure ...


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Neo CI/CD User Guide
email notificatio
Overview
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Neo 2
Neo Contract
Neo Projects
Writing a neo.yml
Validate and Generate
Pipeline Triggering
Initialization
Build And Test
Neo Commands
Reports
Package and Publish
Post Publish
Finally
Deploy
Notification Recipients
The Notification Recipients are users who get Email notifications about job status and configuration updates. More fine-grained controls around notifications are available in the neo.yml. See the Email page for more details.
GitHub Installation
The Repository Configuration and GitHub Installation boxes configure the Deployment Key and webhook Neo uses to interact with your Source Repository.
If you have issues with Neo's connection to GitHub, the quickest solution is usually to get someone who is an owner of the Source Repository to click the Install button. Upon doing so, you will be redirected to install a GitHub Application which is being used for authentication going forward in the future.
WARNING
Once a Git+SSH URL is configured, only Neo Support can change the URL. Please file a ticket if the value needs to be updated.
Registry Group Name
Neo will use the value of the Registry Group Name when requesting authorization tokens for publishing from the Registry. The Registry Group Name is generated during project creation in the form grp-neo-<nanoid> and cannot be changed.
Project Page
Pipelines Page
Pipeline Run Page
Project Settings
Project Members
Notification Recipients
GitHub Installation
Registry Group Name
CI Jobs Generator
Slack Project Settings
Profile Page
Notifications
Staging Environment
Configuration
Jenkins UI
Jenkins Workspace

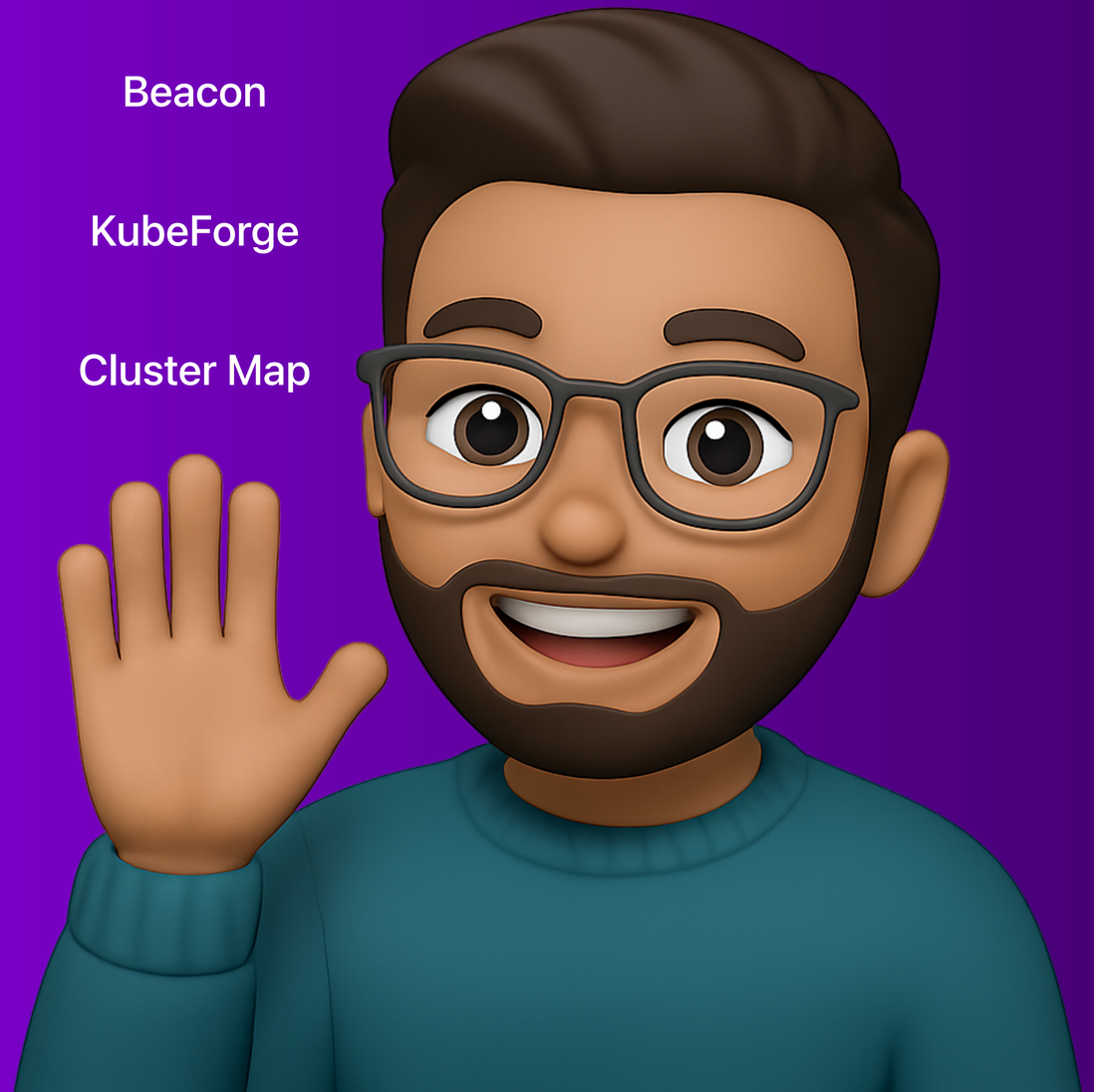

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email notificatio
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Troubleshooting
Support
Community
neo.yml Schema
Search results for "email notifications"
email notifications
11 documents found
Notification Recipients
Neo 2 › Neo Projects › Neo UI
The Notification Recipients are users who get Email notifications about job status and configuration...
email
neo.yml Schema
Path: notify:email: Type: Map, optional Email settings for notifications. enabled Path: notify:...
Finding Validation Errors
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Initialization
Build And Test
Neo Commands
Reports
Package and Publish
Post Publish
Finally
Deploy
email
Path: notify:email:
Type: Map, optional
Email settings for notifications.
enabled
Path: notify:email:enabled:
Default: true
Type: bool, optional
Turns off email notifications if set to false
recipients
Path: notify:email:recipients:
Type: Sequence of str, optional
The following notifications will be sent to this list of e-mail addresses:
Build failure / recovery notifications
Package creation notifications
This field rarely used as this data is usually managed in Project Settings page on https://neo.example.com Note that only @example.com and @group.example.com are allowed.
schemaVersion
timeout
branchRules
includePatterns
excludePatterns
machine
env
baseImage
credentials
roMount
executor
secrets
system
names
providers
secretProviders
name
machine
steps
exports

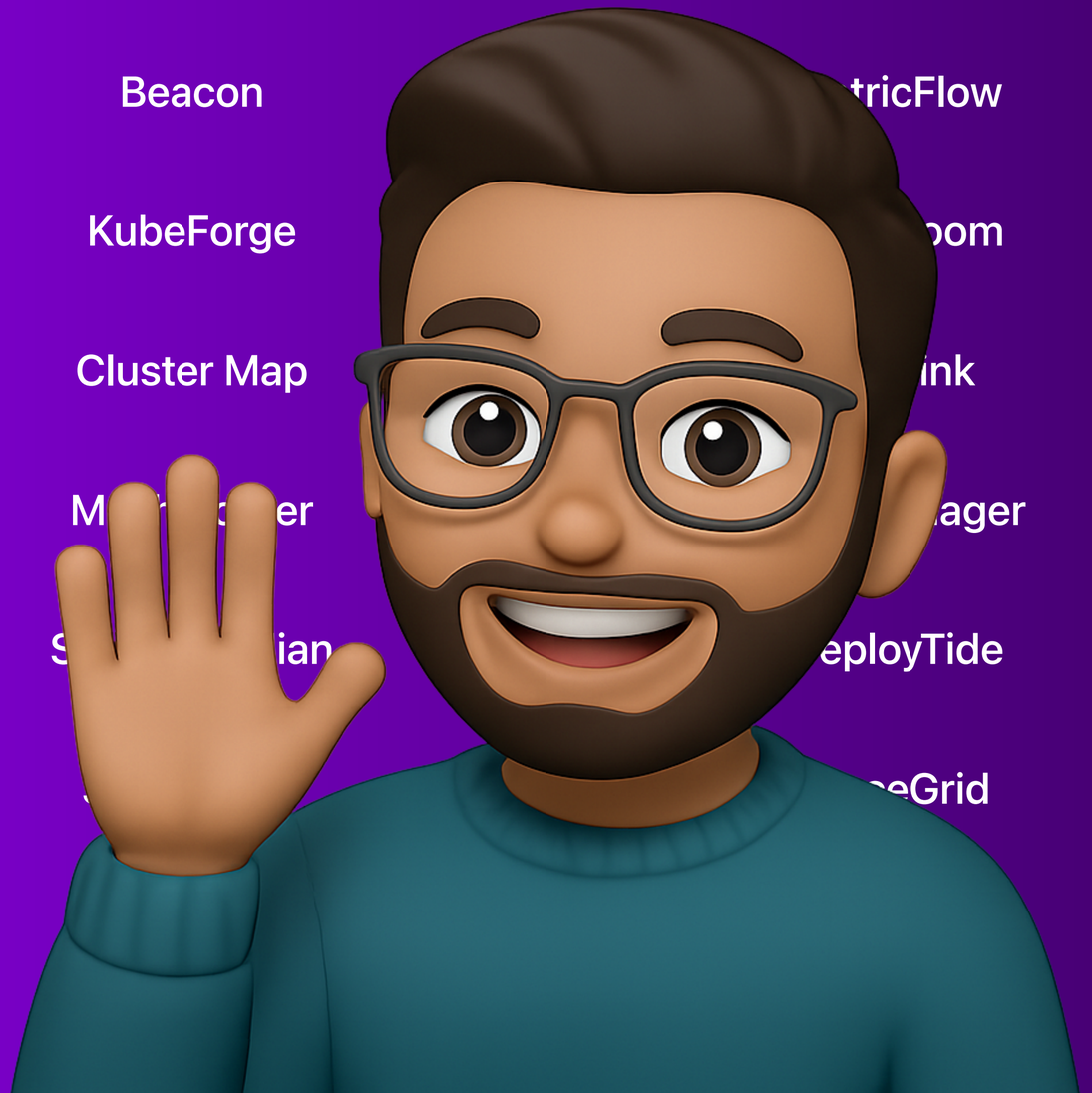
Neo CI / CD



Shield	KubeView	Log Spire	DataLoom
NodePilot	OmniDeploy	Config Sync	Virtue
SchemaMaster	Neo CI / CD	Beacon	
Conduit	Auth Matrix	KubeForge	
Data Weaver	CertVault	Cluster Map	



Shield	KubeView	Log Spire	DataLoom	NetGraph	Helix	Vault Key
NodePilot	OmniDeploy	Config Sync	Virtue	ScyFy	Code Haven	TraceLens
SchemaMaster	Neo CI / CD	Beacon		tricFlow	Vangord	PipelineRunner
Conduit	Auth Matrix	KubeForge		oom	Branch Flow	ApiReplay
Data Weaver	CertVault	Cluster Map		ink	CacheWrap	OpsFrame
StreamShift	Tether	M er		ager	Sentinel	ProxyGrid
Bastion	Token Spine	S ian		eployTide	Stack Spine	Log Bunker
Cloud Scope	Aegis			eGrid	QSync	Prism
Flux	MeshWarden				Cipher	Dev Pulse



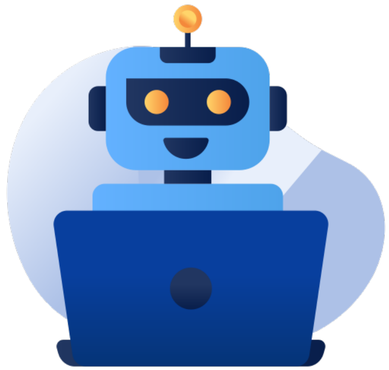
Enterprise Knowledge Challenges



Hard to navigate



Authentication required



Agents lack context



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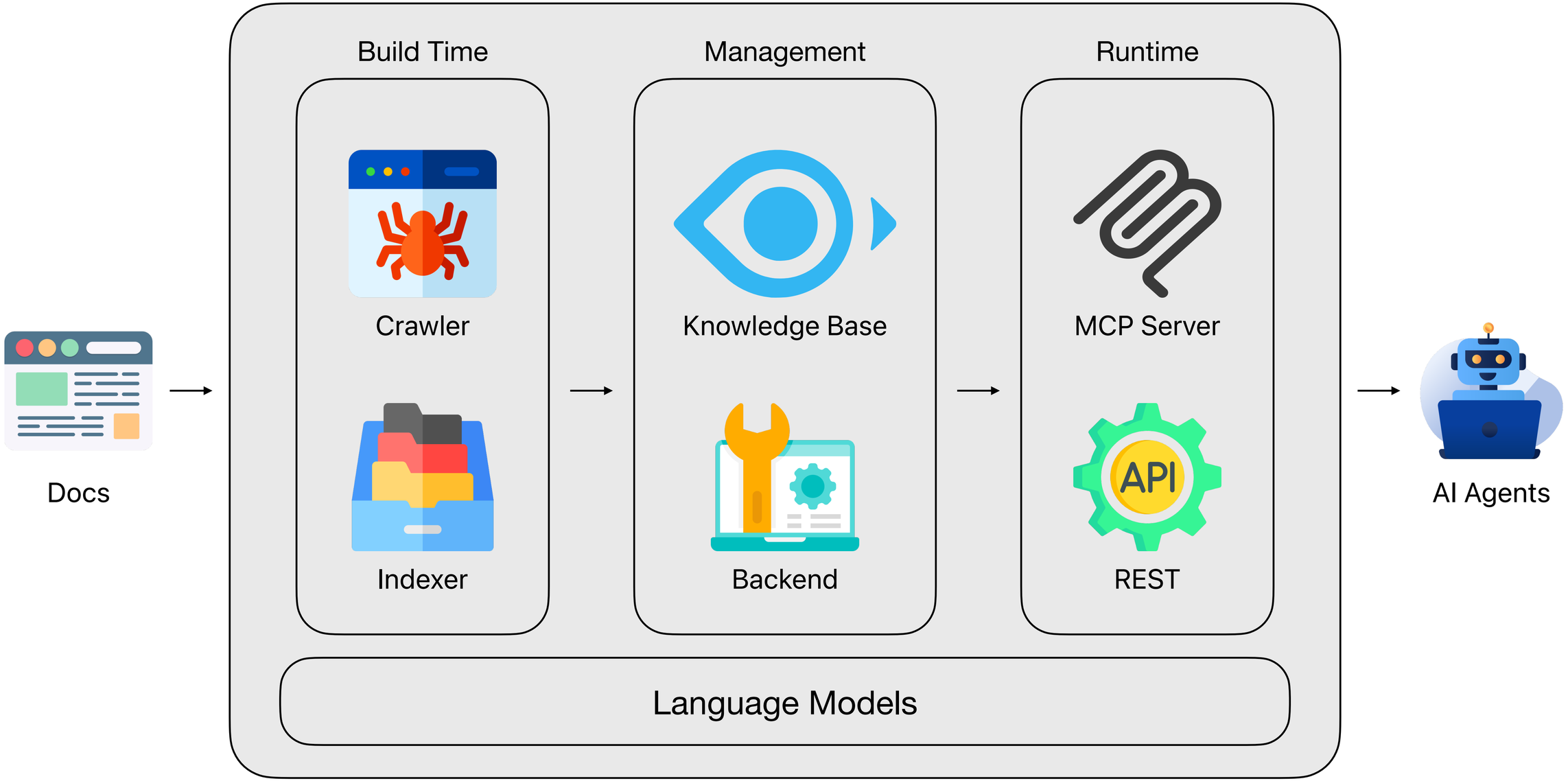
How to Ground AI Agents in Enterprise Knowledge?



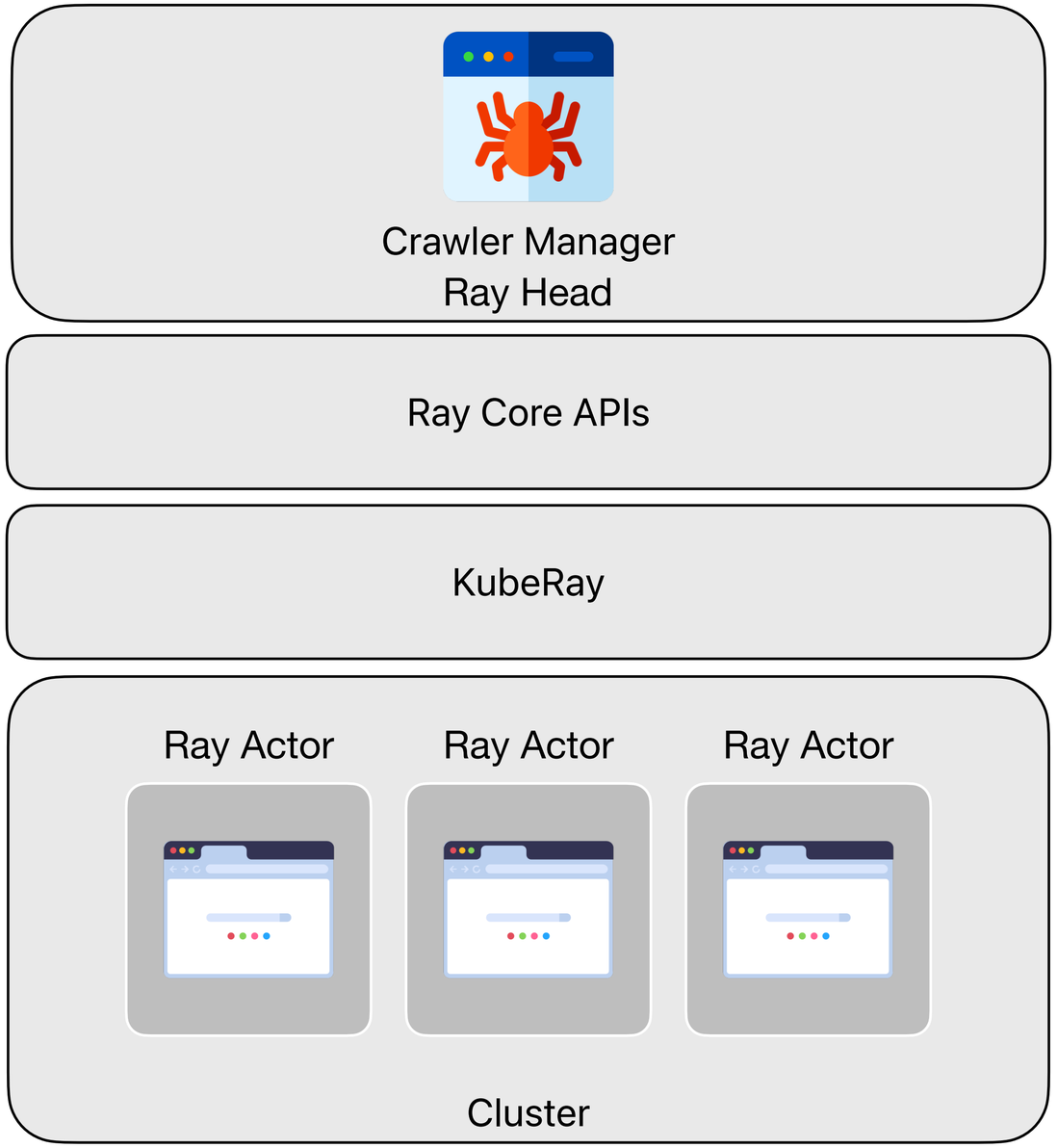
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Enterprise Knowledge Platform

Overview


Build Time
Management
Runtime
Crawler
Knowledge Base
MCP Server
Indexer
Backend
API
REST
Docs
AI Agents
Language Models

Build Time - Crawler



Build Time - Crawler

Control Plane



Crawler Manager
(Ray Head)

Ray Compute Plane



Session Manager Actor



Frontier Queue Actor



Ray Crawl Actors Pool

Ray Object Store



External Components

IdP + MFA



Documentation Sites



Storage Plane



Content Object Store

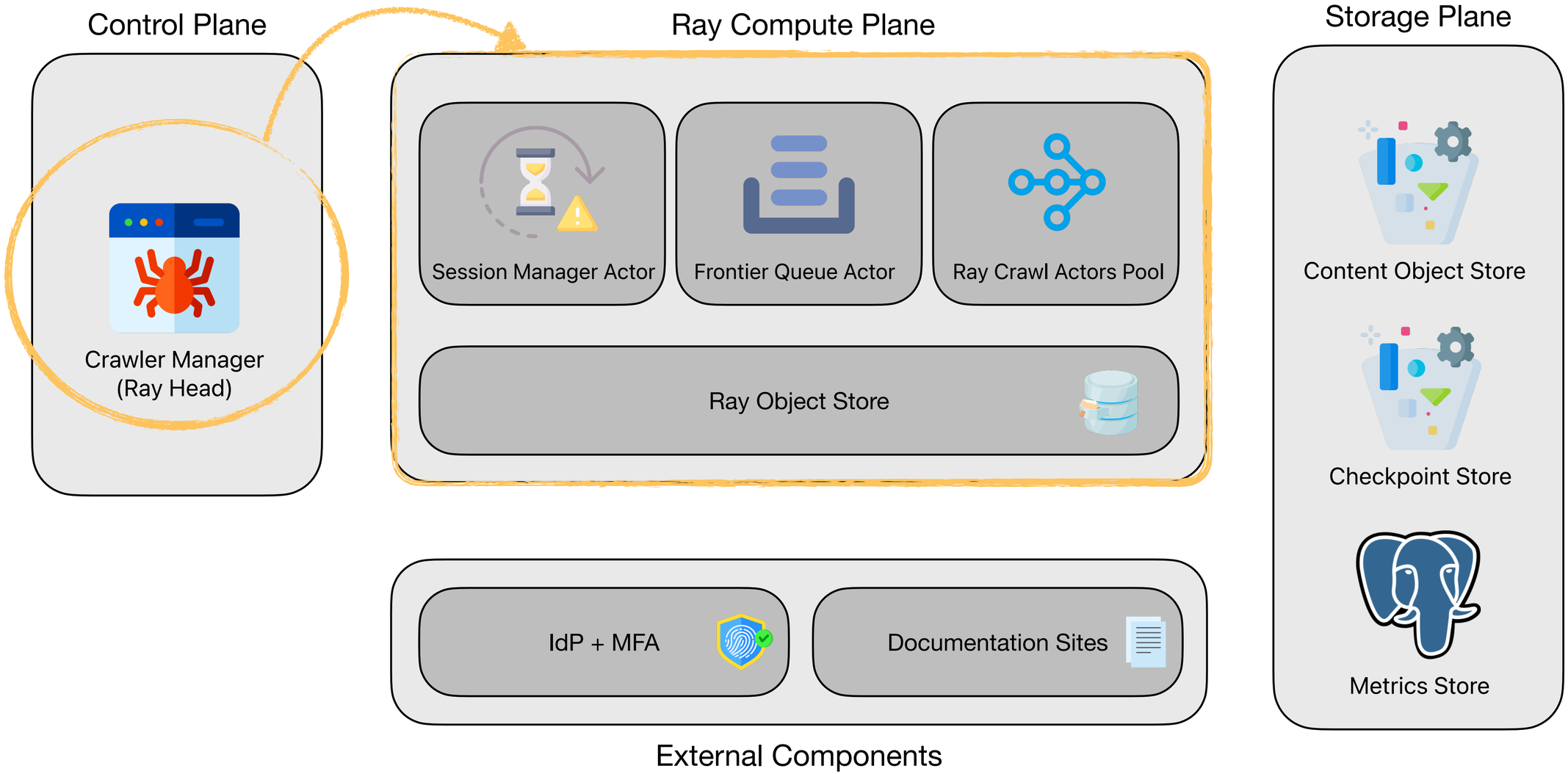


Checkpoint Store

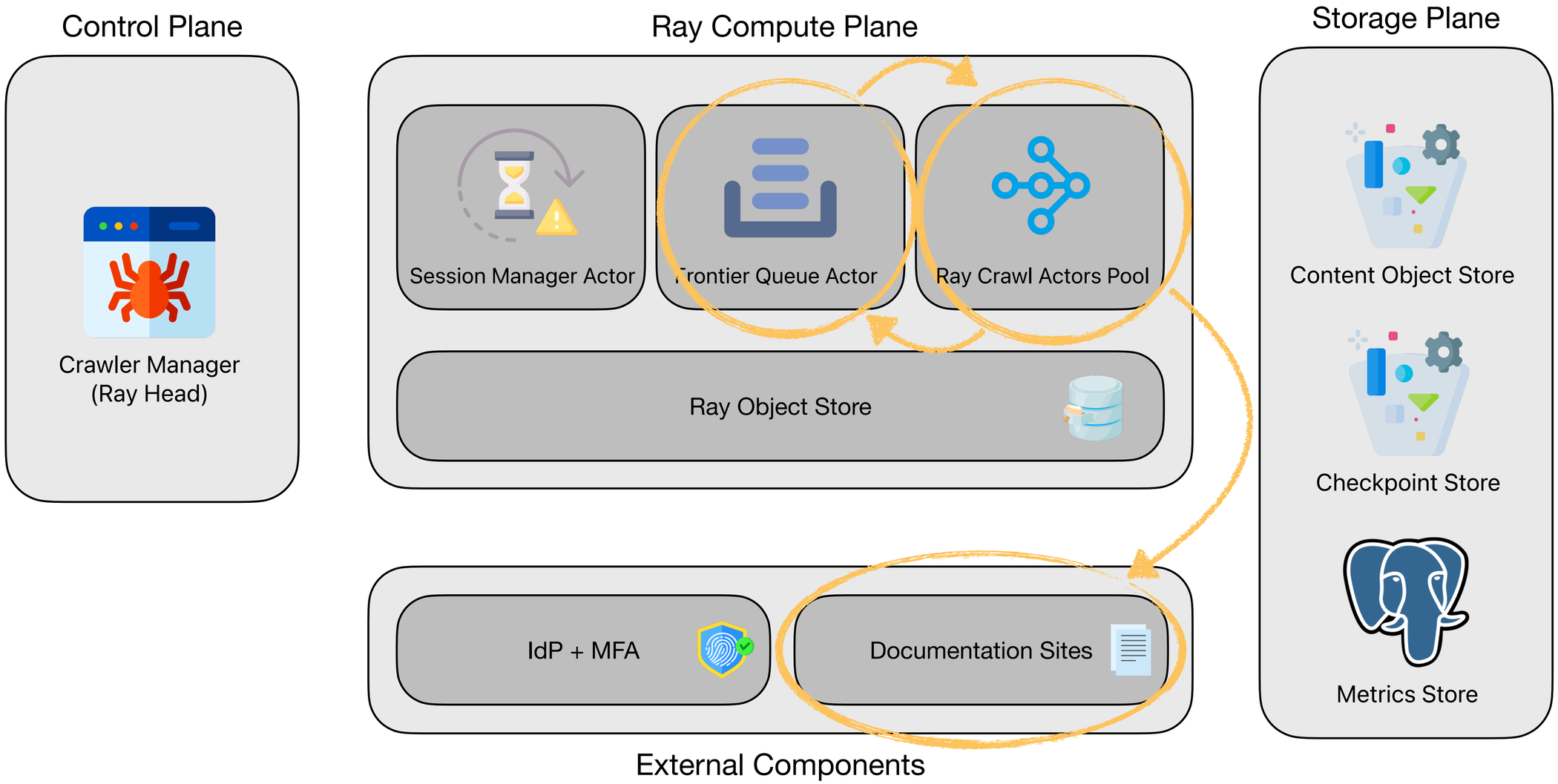


Metrics Store

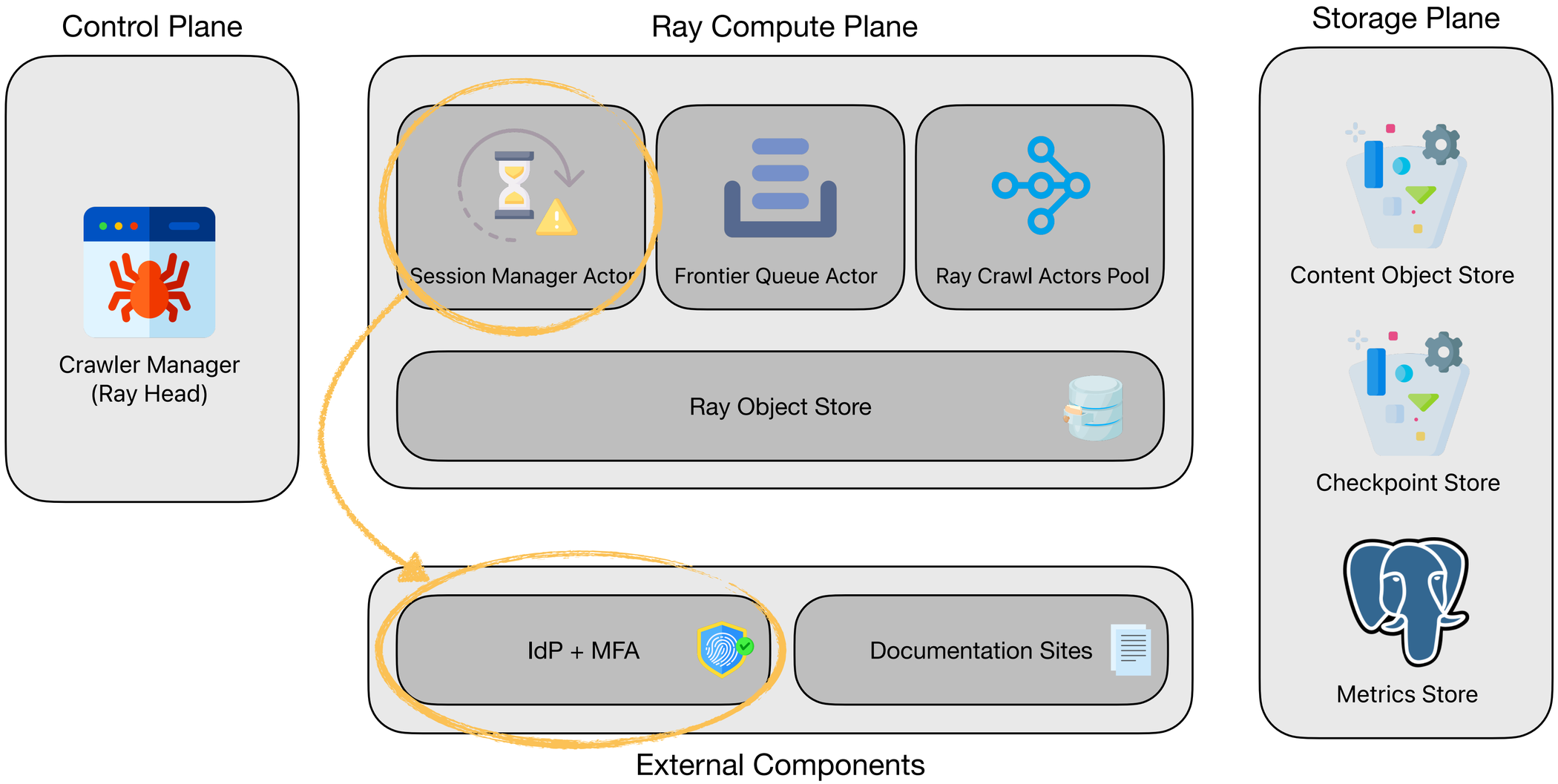
Build Time - Crawler



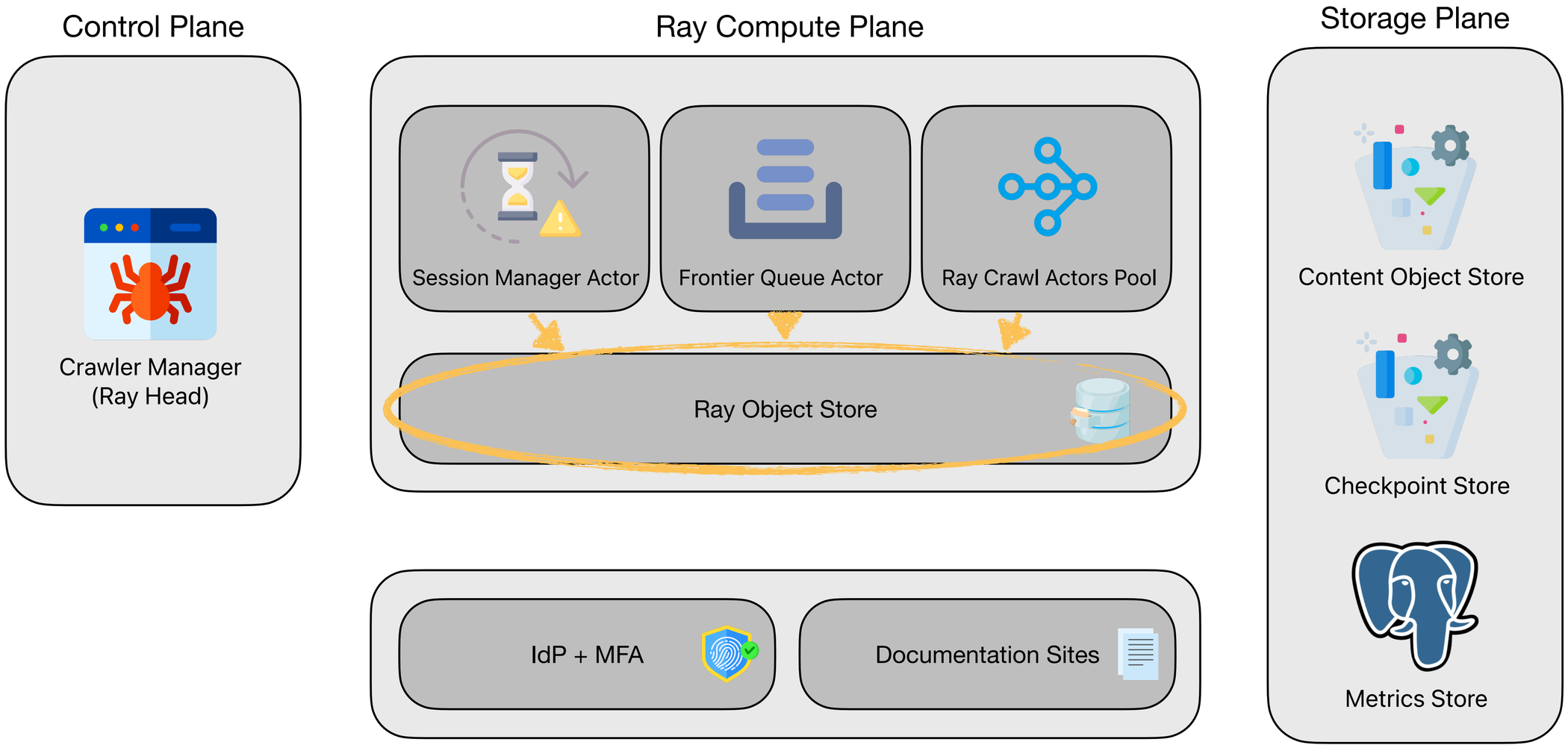
Build Time - Crawler



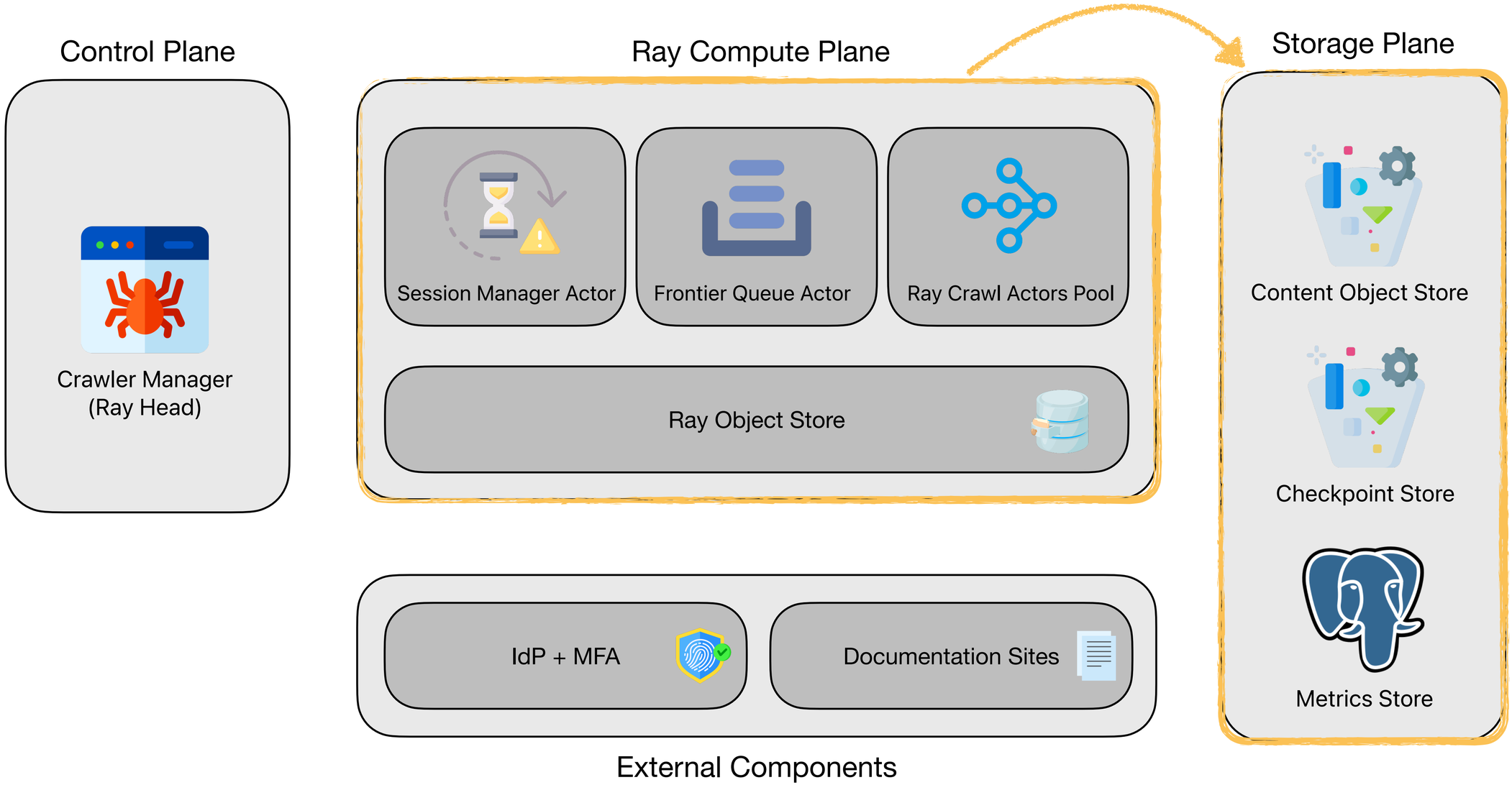
Build Time - Crawler



Build Time - Crawler



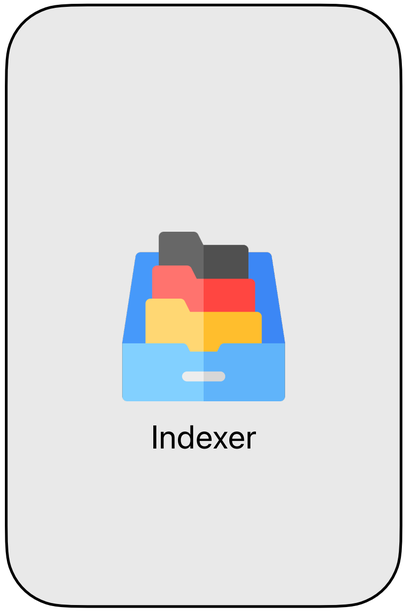
Build Time - Crawler



Build Time - Indexer



Content Object Store

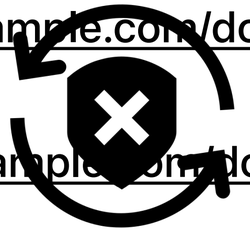




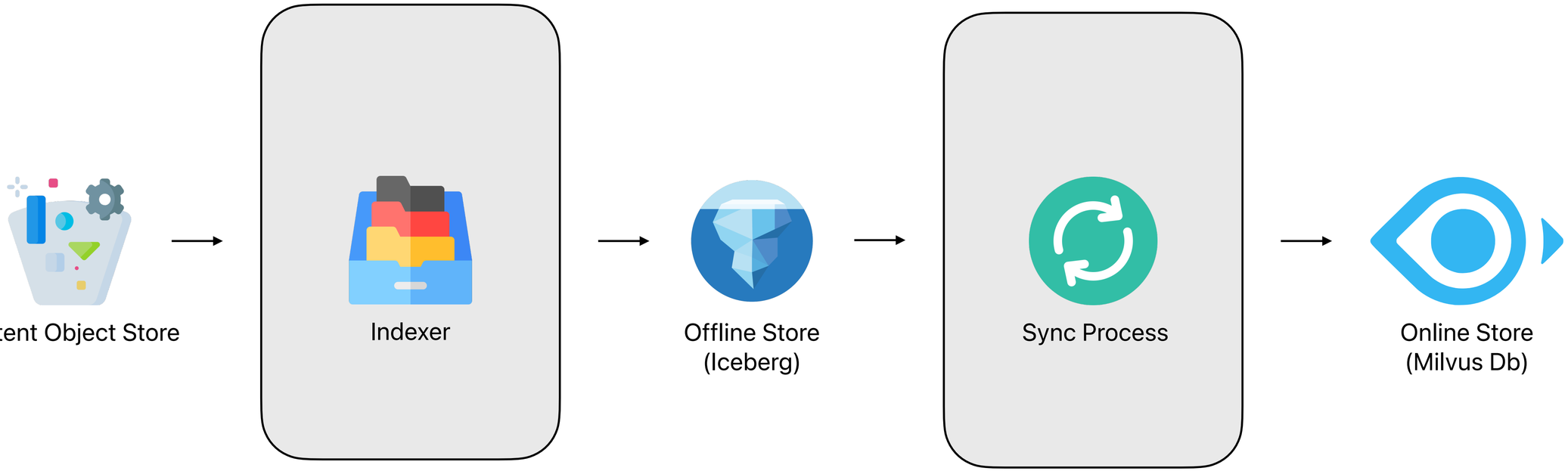
Online Store
(Milvus Db)

[v1] example.com/docs

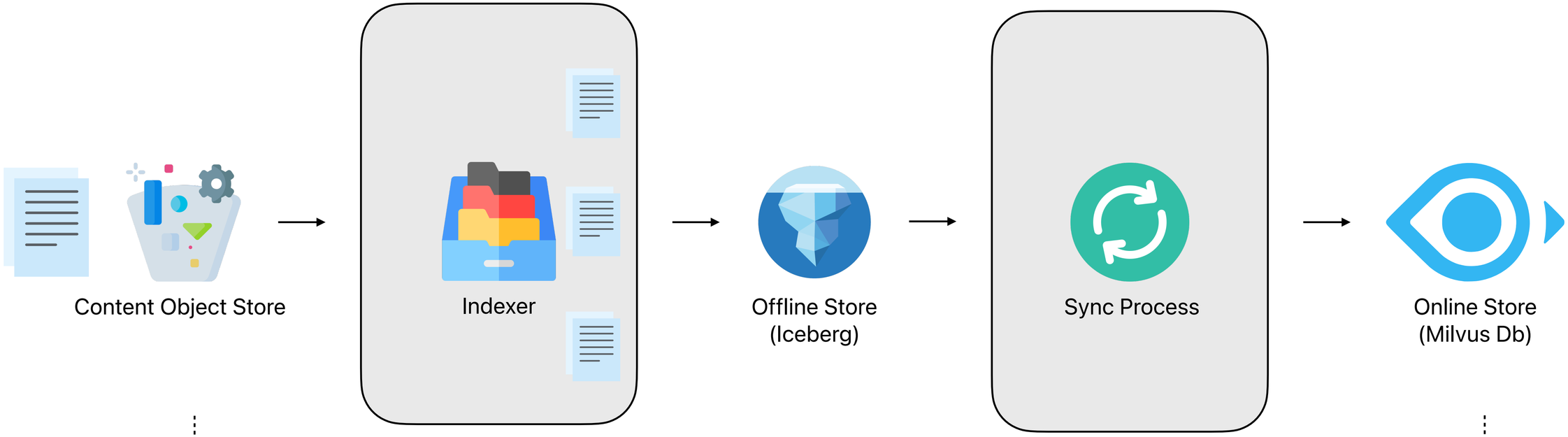
[v2] example.com/docs



Build Time - Indexer



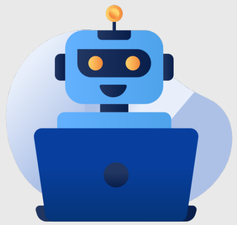
Build Time - Indexer



objectstore://content/<domain_id>/<version>/<resource_id>

source_id: example
source_version v1
resource_id example.com/docs/
chunk_id 550e8400-e29b-41d4...
embedding [0.12, 0.17, 0.31, ...]
content “Think Different”

Runtime

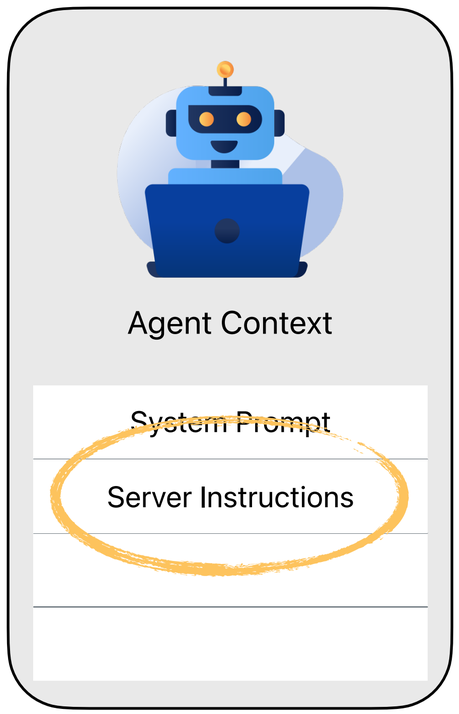


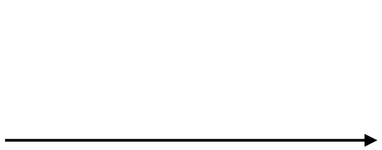
Agent Context

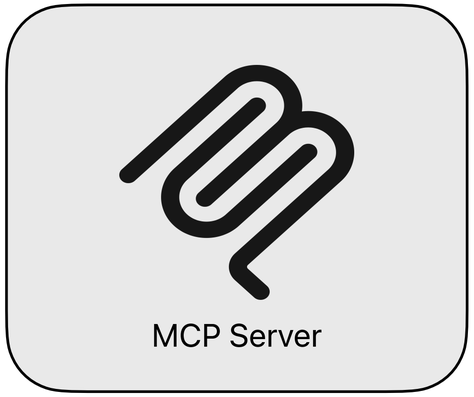
System Prompt



Runtime









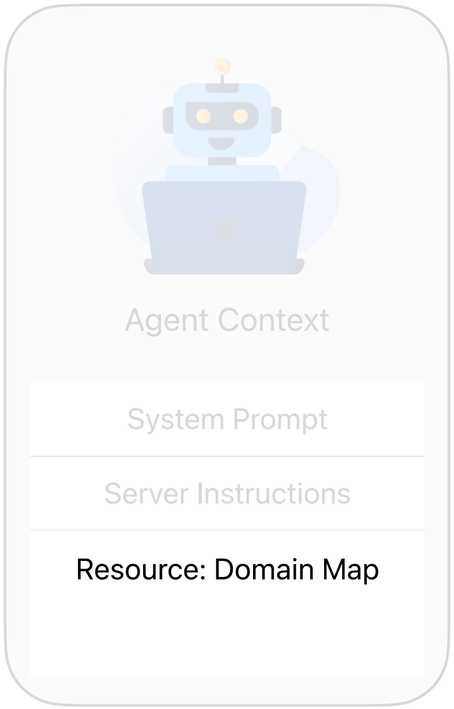
Grounds answers in enterprise documentation from the Knowledge Platform.

WHEN TO USE
- Config fields and valid values
- API endpoints, parameters, and examples
- How-tos, best practices, and FAQs

MANDATORY WORKFLOW
1. Read knowledge://domain-mapping to pick the scope. Never guess tags.
2. Call search_company_docs with the query + domains
3. Answer ONLY from the returned chunks; cite each source

EXAMPLE
"How do I add Neo build emails?"
→ knowledge://domain-mapping → “neo"
→ search_company_docs(“Neo email notifications", domains=[“neo"])
→ grounded answer + citations

Runtime



knowledge://domain-mapping

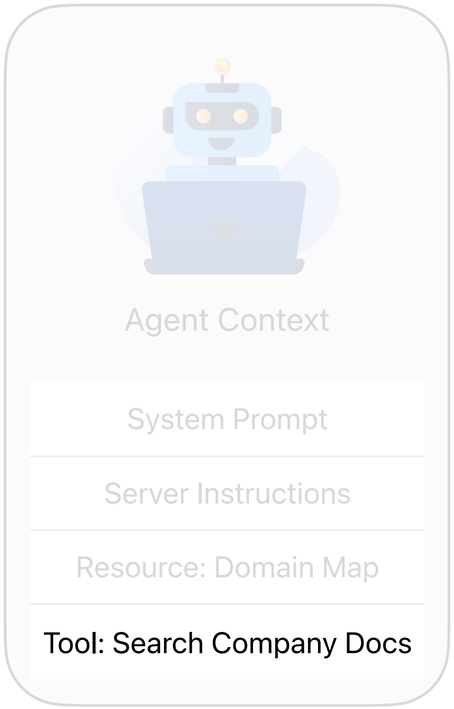
MCP Server

GET /api/v1/domains

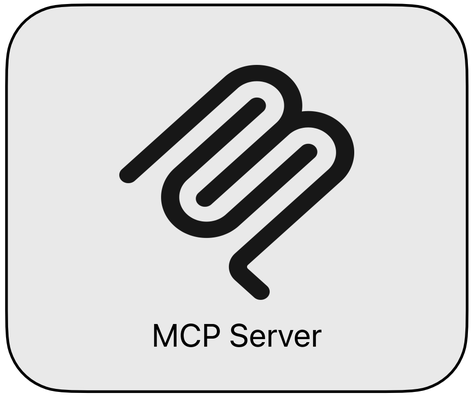
Backend


```
{
 "domains": [
  {
   "tag": "neo",
   "description": "Neo CI / CD: builds, pipelines, notifications",
   "url": “https://cloud.example.com/docs/neo”
  },
  {
   "tag": "helix",
   "description": "Helix: stream processing”,
   "url": “https://helix.example.com/docs”
  },
  .
  .
 ]
}
```

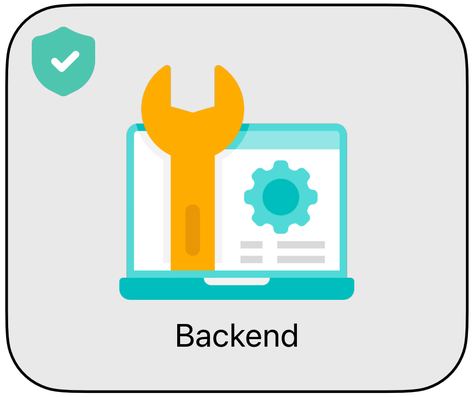
Runtime



search_company_docs
(query, domains)

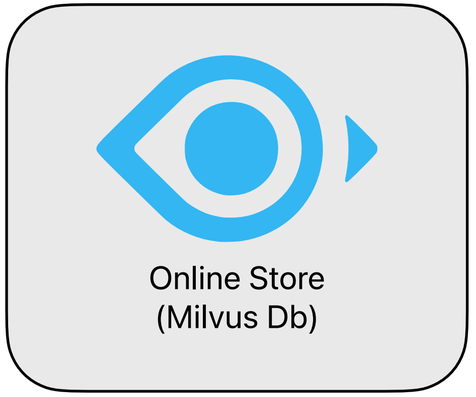


POST /api/v1/knowledge/search



Cross Encoder Reranking

Hybrid Search
(Dense + BM25)
with RRF

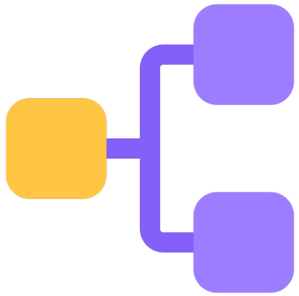



```
{
 "results": [
  {
   "title": "Neo Schema › notify:email:enabled",
   "chunk": "Build emails are on by default (true).",
   "citation": “https://cloud.company.com/docs/neo/schema#notify-email-enabled”,
   "similarity_score": 0.92
  },
  {
   "title": “Neo Schema › notify:email:recipients",
   "chunk": "List of @company.com addresses to email.",
   "citation": “https://cloud.company.com/docs/neo/schema#notify-email-recipients",
   "similarity_score": 0.89
  }
 ]
}
```

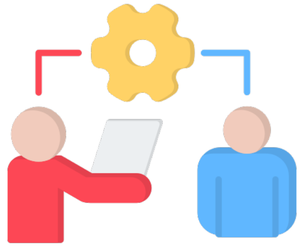
MCP Production Takeaways



Sticky Server Instructions



Two-Step Workflow

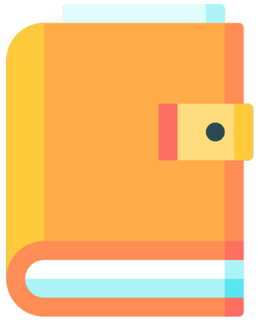


Delegate Authorization



Retrieval Techniques

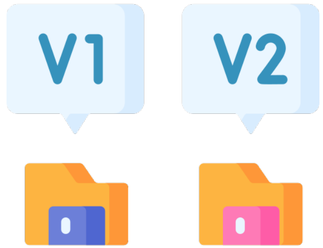
Summary



Enterprise Knowledge Platform



Distributed Authenticated Crawler



Version-Aware Knowledge Ingestion



Multi-Tenant MCP Architecture



Open Source Blueprint For Production

Thank You



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NORTH AMERICA

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Webpage icons created by Iconic Panda

Crawler icons created by Magnific

Index icons created by Magnific

Repair icons created by kerismaker

Api icons created by Magnific

Version icons created by Magnific

Project icons created by Smashicons

Diary icons created by Magnific

Files and folders icons created by sonnycandra

Artificial intelligence icons created by Vectorslab

Maze icons created by Magnific

Webpage icons created by Vectors Tank

Sync icons created by graphicmall

Ui icons created by Stockio

Reload icons created by SumberRejeki

Authentication icons created by Dewi Sari

Database icons created by Magnific

Queue icons created by egorpolyakov

Adaptation icons created by Magnific

Expiration icons created by sahila99

Instructions icons created by iconixar

Workflow icons created by Anggara

Delegate icons created by logisstudio

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