

# Effortless, Fast CI Built for Monorepos

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# The Scaling Dilemma: Growth vs. Speed in Modern Development

The world's moving fast, and getting products to market feels like a race that keeps speeding up.

Monorepos are transforming development by enhancing collaboration, code reuse, and team velocity. But, CI not tailored for monorepos can result in delays and added costs.

## Speed

As monorepos grow, building and testing all projects becomes slower, bogging down even the most high-performing teams. Fast CI is essential to maintain velocity at scale.

## Complexity

Current CI providers aren't designed for monorepos. Their low-level and static configurations require custom solutions that are complex, inefficient, and divert focus from delivering business value.

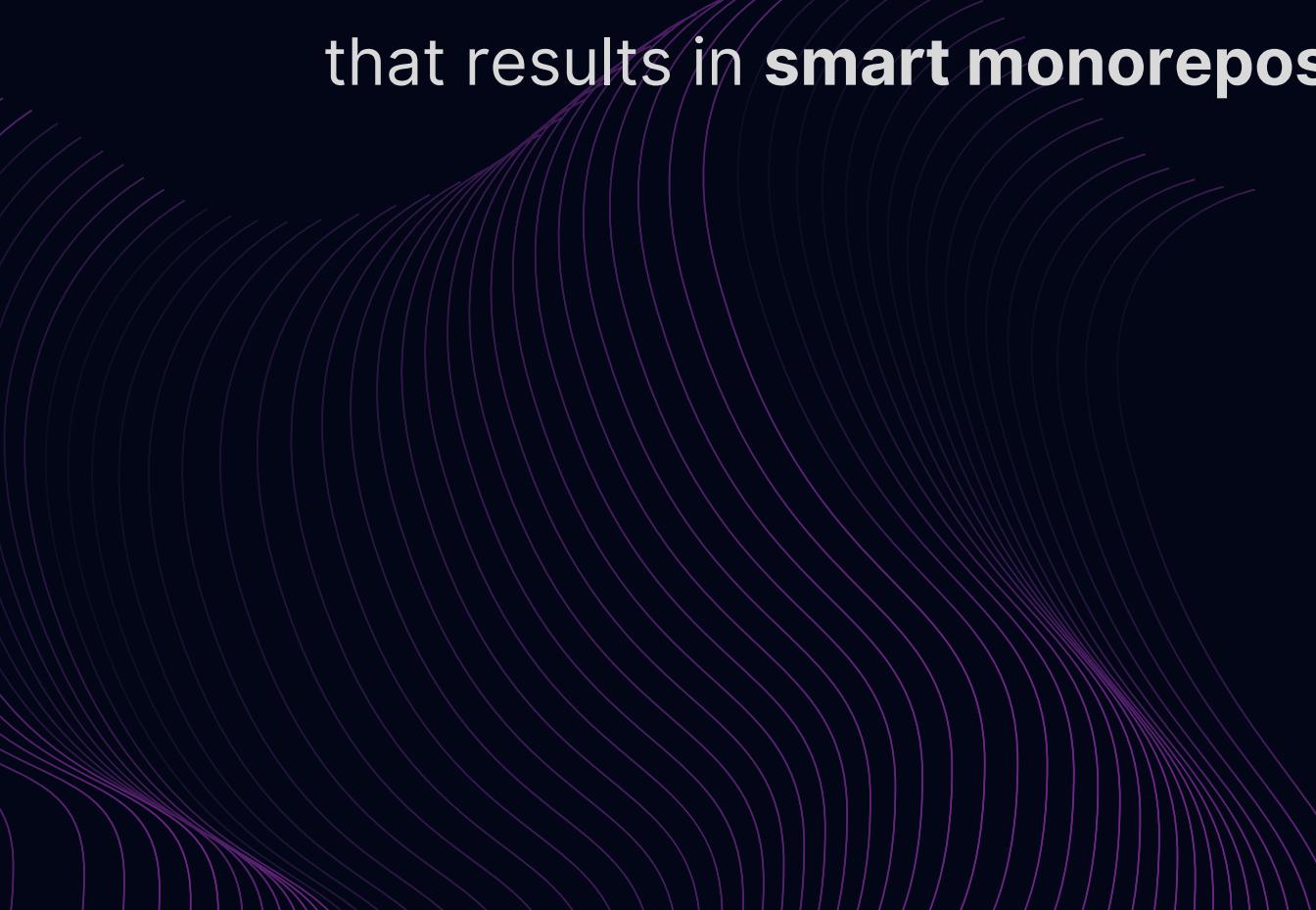
## Compute Cost

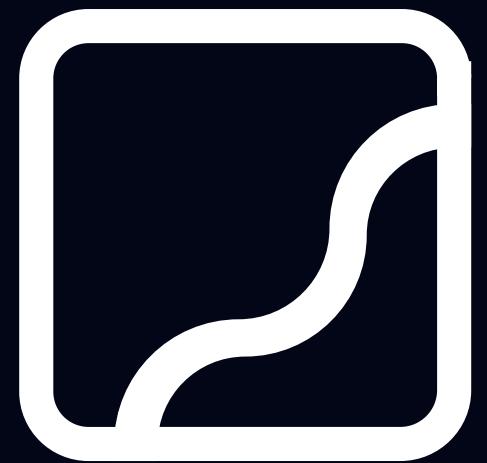
In a monorepo, even a single code change can cascade across multiple projects. Static CI tools lack the flexibility to optimize compute allocation, driving up costs for minor changes and slowing down progress on larger, business-critical updates.

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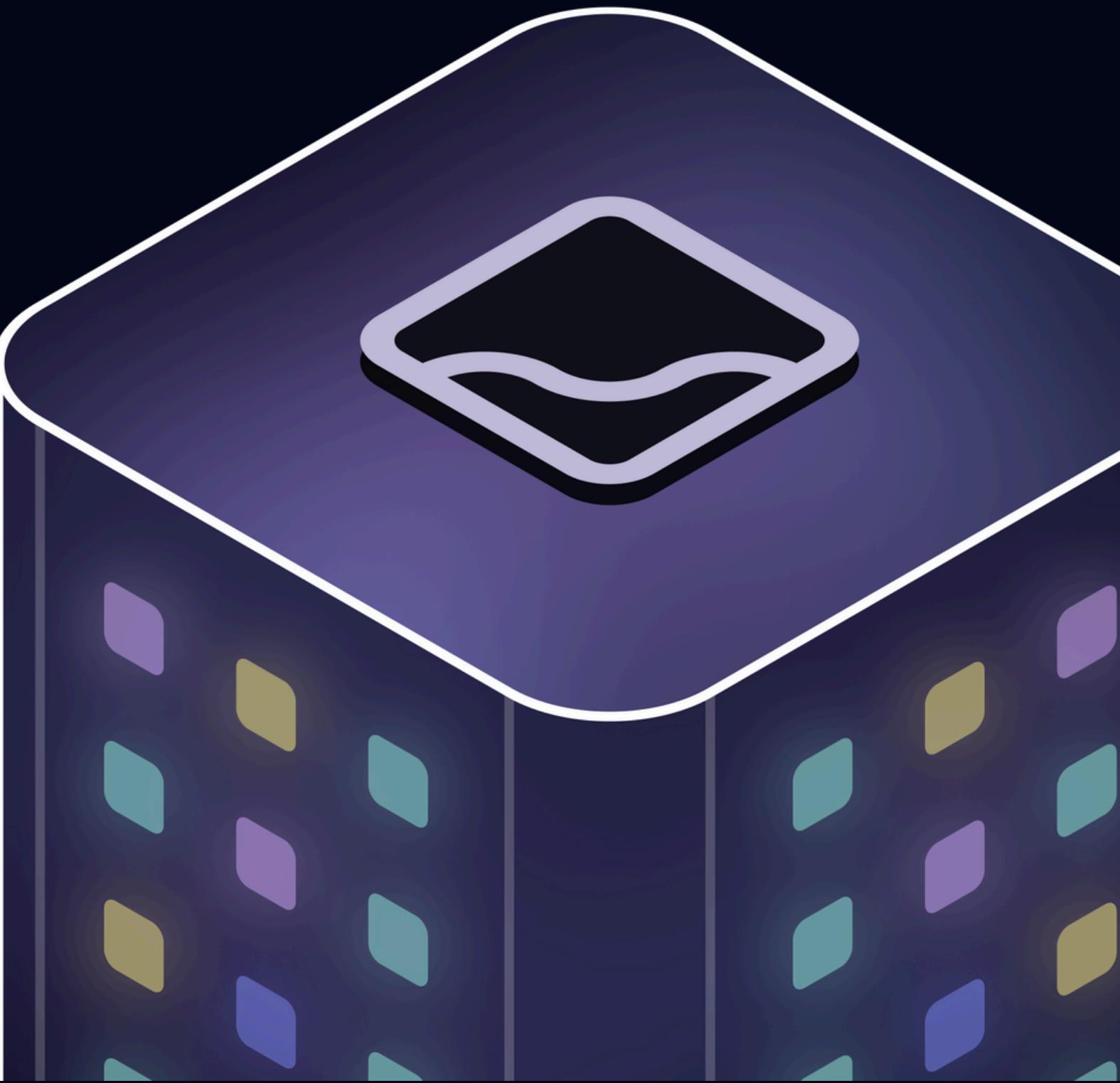
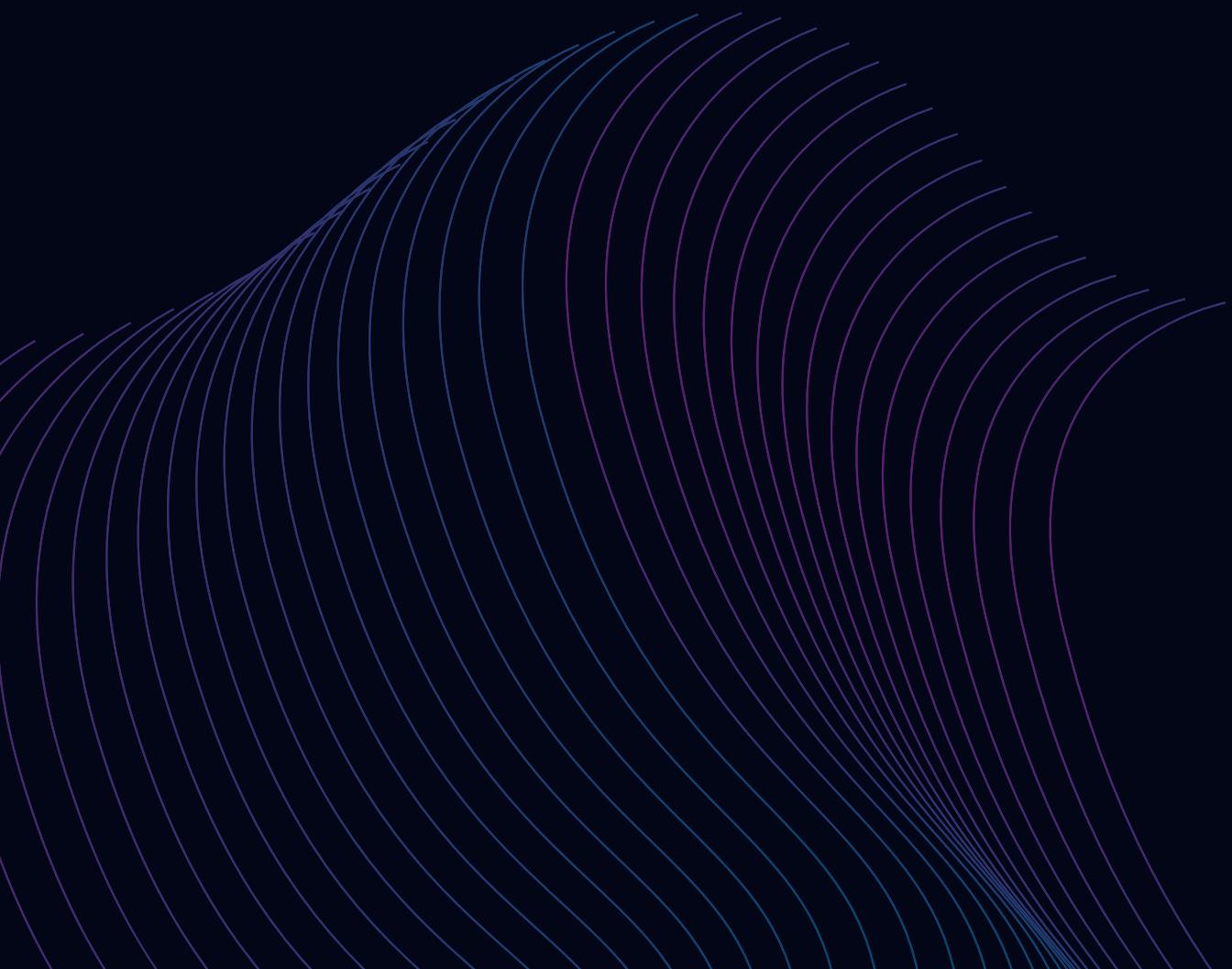
# Fast CI for monorepos shouldn't be this complicated.

Nx and Nx Cloud are engineered to integrate seamlessly – delivering an end-to-end solution that results in **smart monorepos with fast CI**.





# The Nx Cloud Solution



# Seamless, Efficient, Fast CI

Up to 70%

FASTER CI



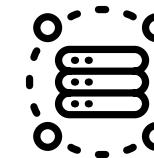
Based on Enterprise customers using Nx & Nx Cloud

Up to 75%

REDUCTION IN CI COSTS

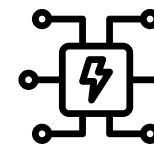
Based on Nx Cloud customers

# How?



## Nx Replay

Built-in local and remote caching to speed up your CI by never running the same computation twice.



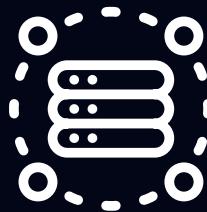
## Nx Agents

Automatic distribution of tasks across fully managed machines, for maximum resource utilization, parallelization and speed.



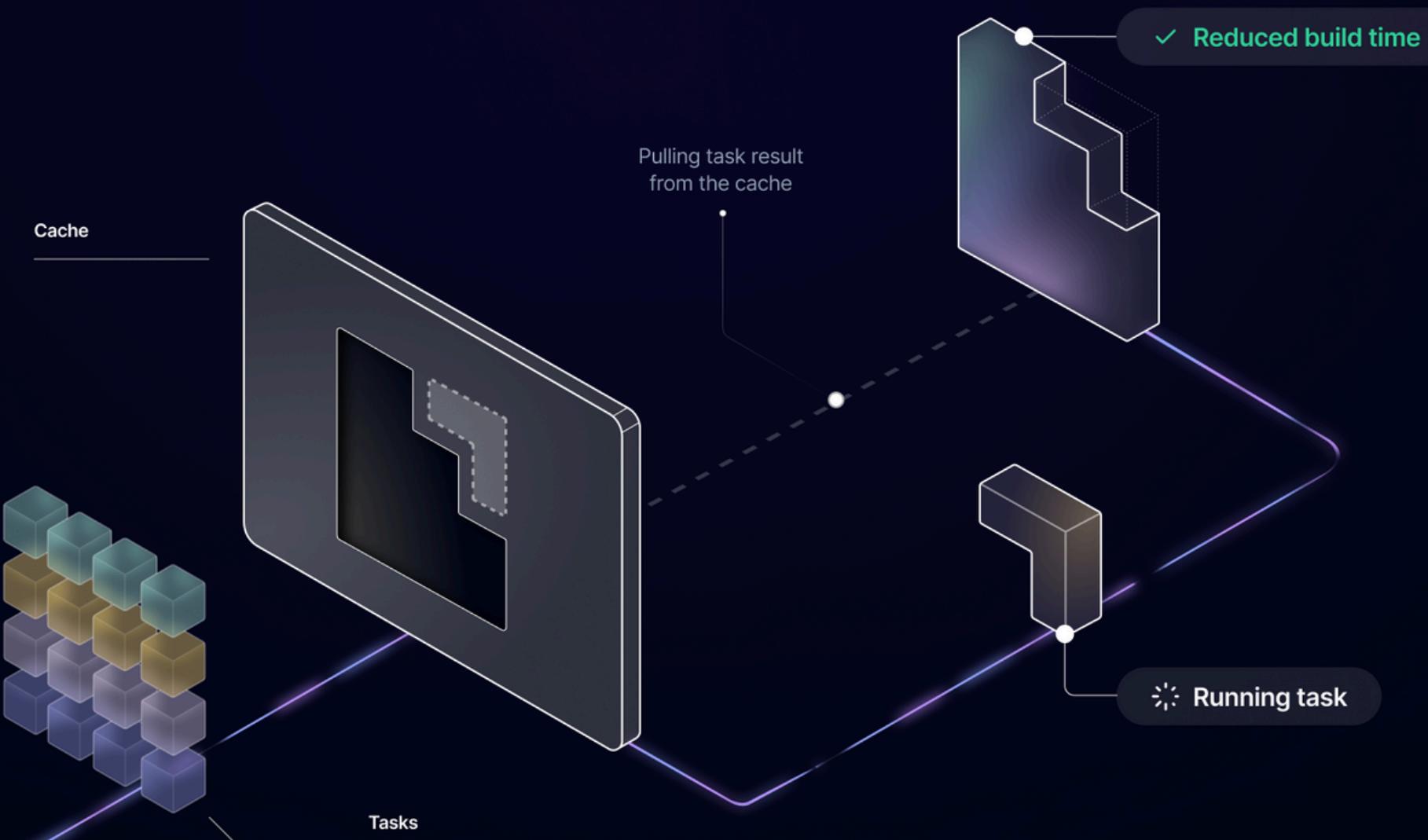
“Since we are using Nx Cloud, we saw our **CI times reduced by 83%**! Our teams are not waiting hours for their PR to be merged anymore, we reclaimed our productivity and are pretty happy about it.

**Laurent Delamare**  
Senior Engineer at VMware



# Nx Replay: Never Run the Same Computation Twice

Modern software teams face tight deadlines and complex workflows. **Nx Replay** simplifies your CI pipeline by ensuring you never waste time repeating tasks unnecessarily.

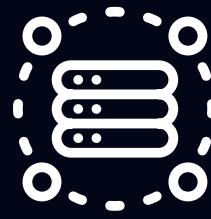


## Powerful Remote Caching

Reimagine your development process with secure remote computation caching. By reusing task results from both CI executions and local command runs, your team can drastically reduce build times.

## Plug and Play

Designed for seamless implementation, Nx Replay integrates effortlessly with your preferred CI provider. Connect Nx Cloud to your workspace in minutes and unlock intelligent caching – no complex setup required.



# Nx Replay

774

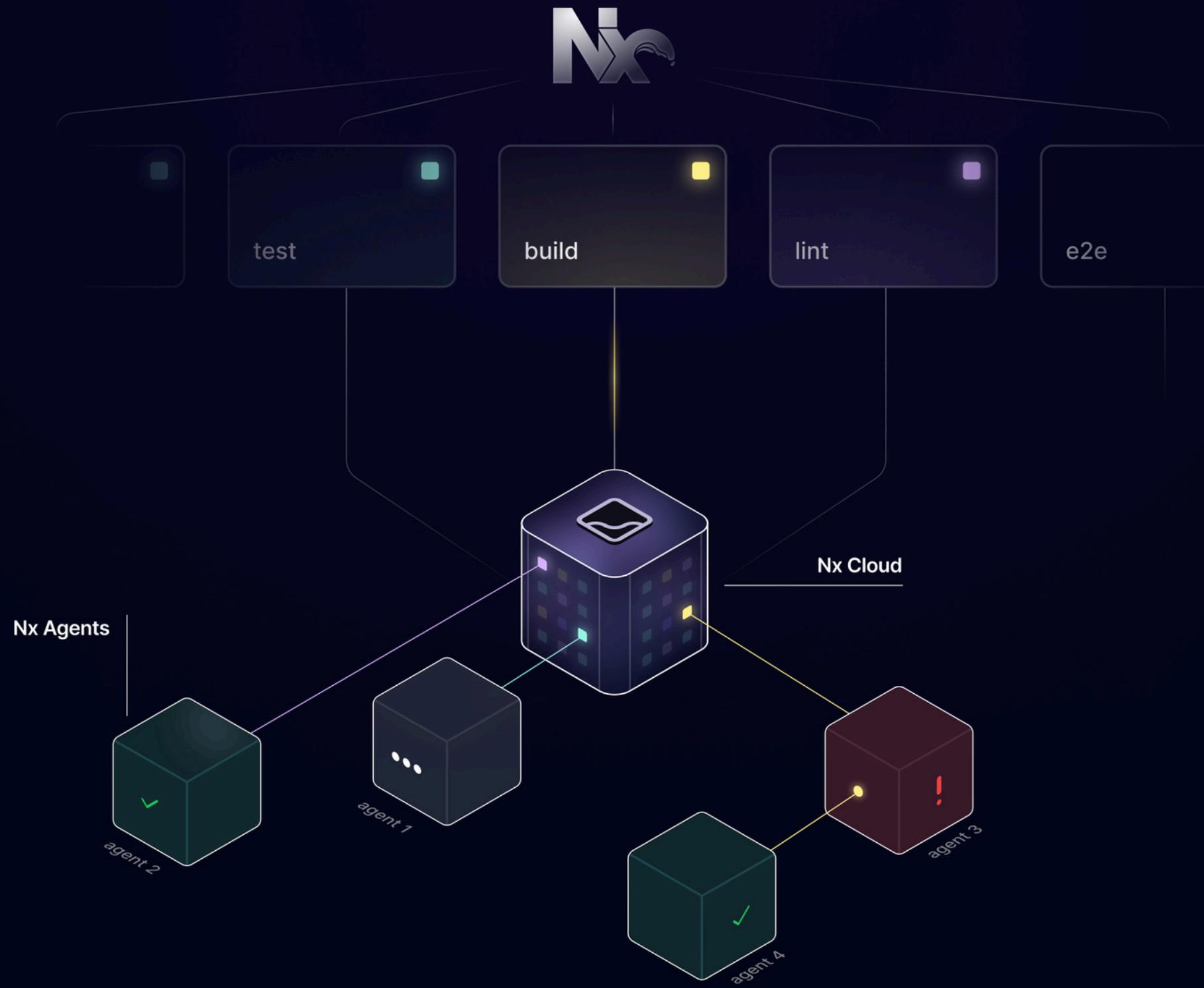
# YEARS

of computation saved in the  
last 30 days with Nx Replay

Based on Nx Cloud Enterprise customer data (Dec 2024)



# Nx Agents : Seamless Distribution, Faster CI



## Smart Agent Management

Nx Cloud takes care of your agents by handling complex machine provisioning directly from your CI provider. Whether you're running tests, building projects, or running end-to-end checks, Nx Cloud ensures tasks are distributed efficiently across agents.

## Effortless Scaling

Trigger any Nx command within your CI provider, and let Nx Cloud distribute tasks intelligently. This approach reduces operational overhead, enhances cost efficiency, and speeds up your CI pipelines.



# Cut Costs Without Compromising Speed

## The Traditional Approach

Platforms like CircleCI are powerful, but they're not always optimized for peak efficiency. High infrastructure costs can hold back your team's productivity.

## The Nx Advantage

Unlock a smarter, faster pipeline by combining CircleCI with Nx Replay and Nx Agents. Nx Replay optimizes task reuse with remote caching, while Nx Agents efficiently distribute workloads. Together, they drastically reduce infrastructure costs while speeding up execution.

CircleCI only  
CircleCI with Nx Replay and Nx Agents

Halve your CI bill



Cost per month for CI compute. See more substantial savings with providers like GitHub Actions due to higher per-run costs. (Data collected based on a typical month of CI runs measured on the Nx OSS monorepo.)



## Nx Agents

# From 5 days to 2 hours

“

The number of hours we spent trying to load balance in CircleCI – agents that we'd run by hand and try to distribute ourselves manually – it was painful. We'd spend hours and days trying to do that. **With Nx Cloud we don't need to think about that.**

**Nicolas Beaussart**

Staff Platform Engineer at Payfit

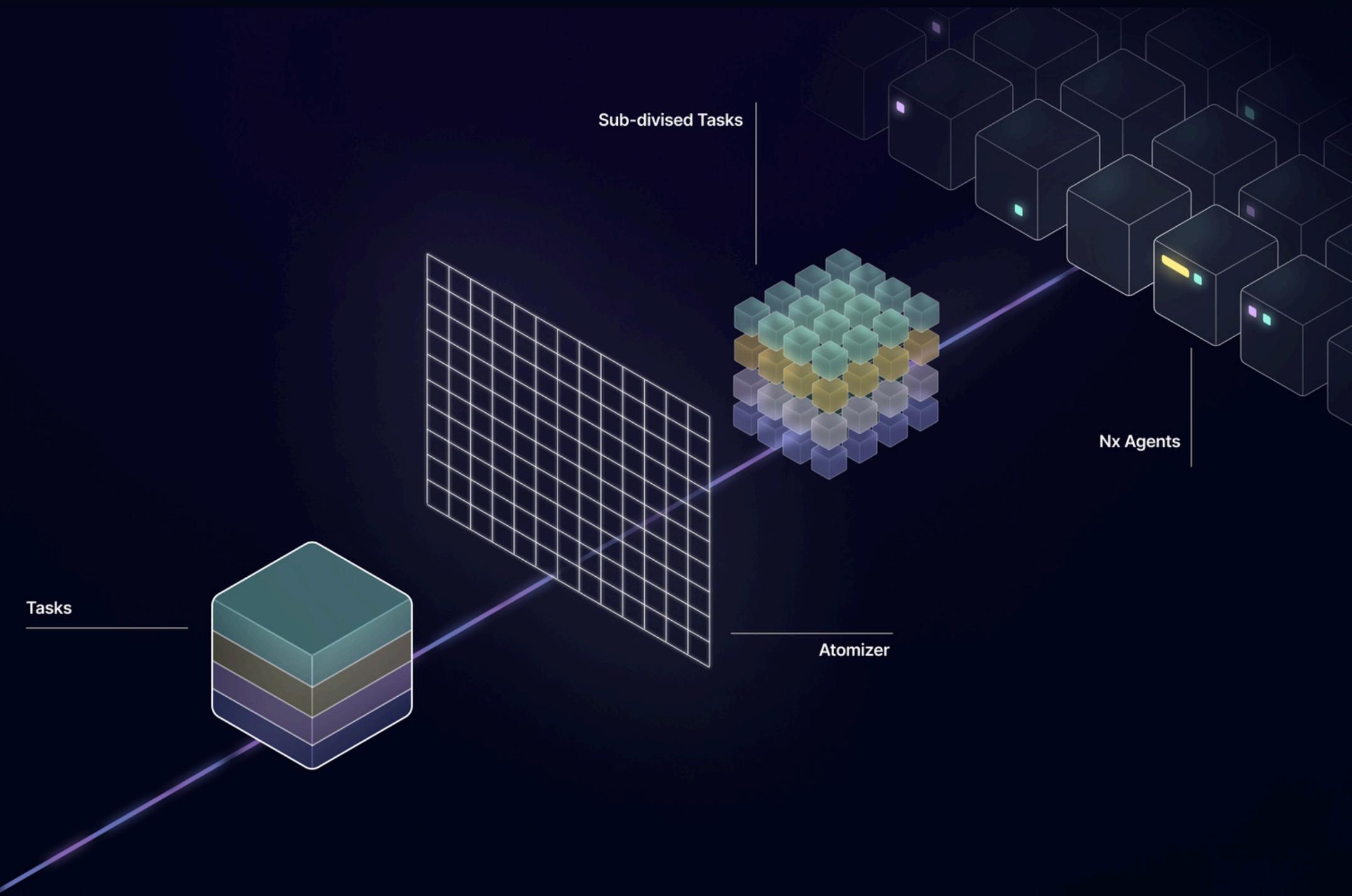
# Solving E2E Test Bottlenecks: Faster, Smarter, More Cost Effective

## Test Atomizer

Nx Cloud's Atomizer breaks large e2e projects into smaller, fine-grained test runs. By enabling efficient task distribution, CI times are drastically reduced – with reports of reduced e2e runtimes from 90 minutes to under 10 minutes.

## Flakiness Detection

Flaky tests create unnecessary delays and frustration. Nx Cloud automatically detects unstable e2e tests at the file level and re-runs only those specific tests. This ensures a smoother developer experience while keeping compute costs low.



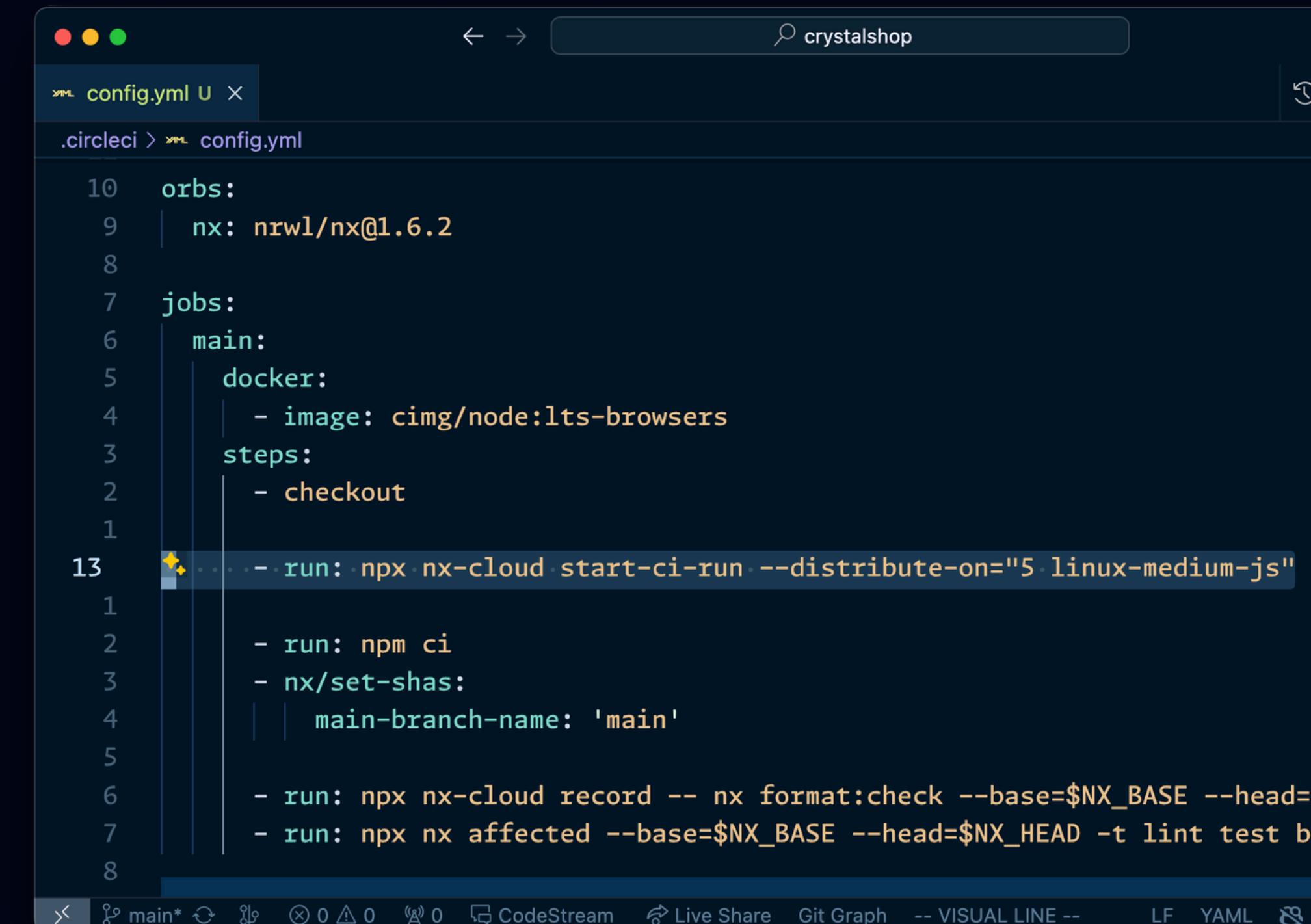
# Simple and Maintainable

All done with a single line of code.

## Focus on What, Not How

Nx Cloud simplifies CI configuration by focusing on which tasks to execute rather than how to execute them. There's no need to constantly tweak scripts as your monorepo evolves.

With a streamlined setup, you'll reduce CI maintenance efforts, increase stability, and free up time to focus on what really matters.



```
config.yml
...
orbs:
  nx: nrwl/nx@1.6.2
jobs:
  main:
    docker:
      - image: cimg/node:lts-browsers
    steps:
      - checkout
      - run: npx nx-cloud start-ci-run --distribute-on="5 linux-medium-js"
      - run: npm ci
      - nx/set-shas:
          main-branch-name: 'main'
      - run: npx nx-cloud record -- nx format:check --base=$NX_BASE --head=$NX_HEAD
      - run: npx nx affected --base=$NX_BASE --head=$NX_HEAD -t lint test b
```

# Upgrade Your CI Performance Today

“

Nx means tooling and efficiency around our software development lifecycle that empowers us to move a lot faster, ship code faster and more reliably.



**Justin Schwartzenberger**

Principal Software Engineer at SiriusXM



**Nx Cloud**

[Get started with a free trial](#)