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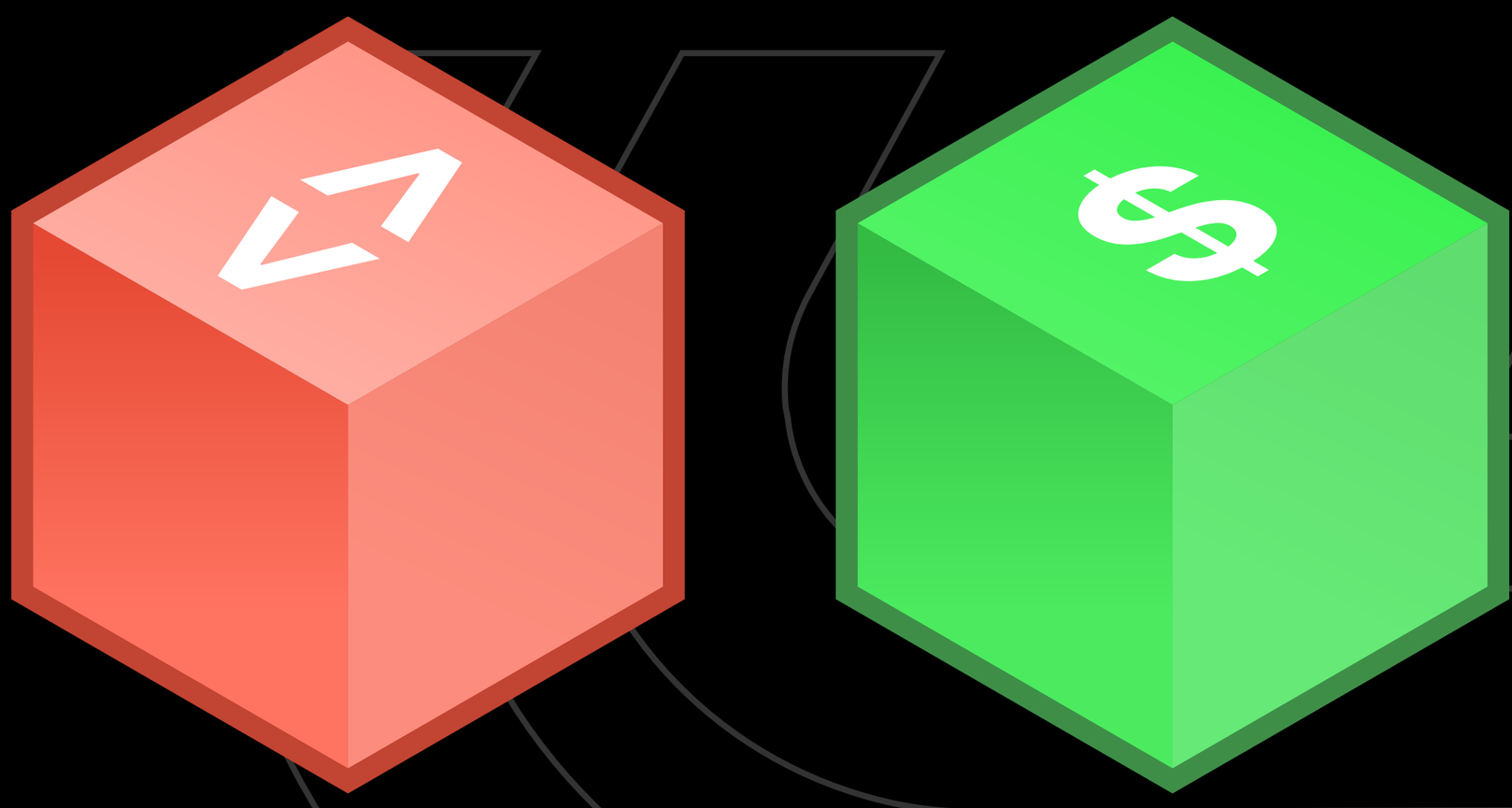
The Great Debate: To Build or Buy

7 Reasons to Purchase Your Data and AI OS



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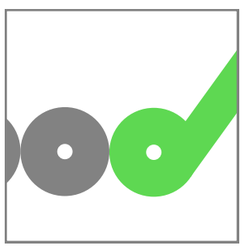
7 Top Reasons to Choose Purchase Over Build

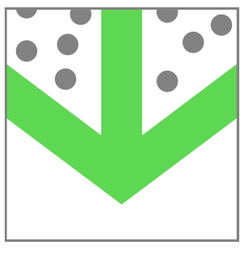
1. **Keep up with the speed of change:** AI and data technologies evolve rapidly, making it a challenge to maintain a cutting-edge in-house solution. Commercial platforms offer immediate access to the latest innovations, ensuring your technology stack remains relevant and powerful.

2. **Hold on to your knowledge:** High turnover in tech teams can lead to a loss of critical knowledge. A commercial platform mitigates this risk, providing continuity and reducing the learning curve for new staff.



3. **Break the re-start cycle:** In-house projects often suffer from the 're-start' phenomenon, where new teams want to overhaul existing systems. A purchased OS provides stability and consistency, avoiding costly and time-consuming re-starts.

4. **Watch your budget:** The Total Cost of Ownership (TCO) for building and maintaining an in-house system can be prohibitive. Commercial solutions offer predictable pricing models that can dramatically reduce upfront and ongoing costs.



5. **Streamline AI tool integration costs:** Integrating various AI tools and ensuring they work together seamlessly is challenging. Commercial platforms come with pre-integrated tools, reducing the complexity and cost of AI implementations.

6. **Fast-track deployment:** Deployment cycles for new tools and updates are significantly shorter with commercial platforms, enabling businesses to adapt quickly to market changes and opportunities.

7. **Cut through the maintenance complexity:** In-house solutions require ongoing maintenance, which can be complex and resource-intensive. Commercial platforms often include automated maintenance and support, reducing the burden on your internal teams.

Introduction

The High Stakes of AI Investment

The sad truth is that most AI projects fail to move beyond the PoC stage.

When CTOs are forced to balance unrealistic expectations from AI initiatives, limited budget, and lack of internal DevOps resources, it's no wonder that the AI project failure rate hovers between 60-80%.

> *"What I see across the world is lots of these 1 to 5 million dollars projects that aren't been worked on," says Andrew Ng, Founder of DeepLearning.AI; Managing General Partner of AI Fund; Founder and CEO of Landing AI*

With this in mind, choosing between building your own data and AI Operating System or buying one is more than a technical decision—it's a strategic move. So, if you're in the CTO hot seat, it's less about whether you can build it and more about whether you should.

Before diving into the buy-or-build dilemma, assessing your DevOps resources and appetite for risk is crucial. With the high stakes of data infrastructure projects, evaluating your options can steer you away from potential mishaps and set you on a path to success. No one wants to stand in a boardroom 12 months after initiating an AI project, trying to explain why the 'AI magic' never appeared, yet the budgets were drained.

Why Buying Might Just Be Your Best Bet

More and more CTOs are recognizing the business case for implementing structured data and AI Operating Systems for a true end-to-end data workflow that can be deployed on any cloud or on-prem. The need is clear. The method? Not so much.

If you are a CTO navigating the build vs buy decision process, here are seven reasons why you should purchase a commercial data and AI infrastructure solution already on the market instead of developing your in-house platform.

1. **Keep up with the speed of change.**

AI evolves at lightning speed. What's hot today might be outdated in two weeks or six months from now. This means whatever methodologies, tools, and architecture your team chooses will likely be the wrong choice simply because the right one doesn't exist yet.

Take vector databases, as an example. Just last year, we witnessed new products claiming to lead the market emerge at least four different times. These databases are at the foundation of your solution. They determine how all your code is written, and how all your data is ingested. It's like the Jenga piece at the bottom. Changing your tool of choice on a home-grown platform will become a serious headache.

Commercial platforms give you frictionless access to the latest tools in the industry. They eliminate the pain of upgrades and migration woes and make using the latest tools as easy as possible.

2. **Hold on to your knowledge.**

Unless your organization is large enough or sufficiently cash-infused to retain an in-house team of high-end engineers, you have faced the pain of human resources moving on. And when they move on, they take their know-how with them. New hires will need to dig deep to understand the fundamental logic and data architecture the previous data expert developed, which is frustrating and time-consuming for all involved. A commercial platform means you won't lose sleep over lost expertise.

3. **Break the re-start cycle.**

As they say, for every two data scientists, there will be three opinions. When new engineers come on board, they will likely disagree with the past methodology and hesitate to maintain someone else's "mess". Every fresh look at data architecture can result in fundamental changes, especially when it comes to high-end engineers who are a creative bunch and want to influence the final product. This leads to a vicious cycle of re-starts that costs the organization big in terms of time and money. A commercial platform avoids the re-start cycle and allows your project to continue even when new talent comes on board.

4. **Watch your budget.**

As a CTO, calculating the Total Cost of Ownership (TCO) during the evaluation phase can help you avoid unpleasant surprises down the road. Custom buildings can get pricey, especially with the clock ticking on development time. While your developers may already be on the payroll, they will be pulled from other projects for quite some time. A typical data and AI infrastructure project is likely to take about 24 months of engineering effort, plus the ongoing salaries for 2-3 DevOp engineers, which can average $300-400K. A commercial data and AI platform with fixed fees can eliminate 90% of these costs.

5. **Streamline AI tool integration costs.**

Incorporating your monthly stack costs into your TCO analysis is crucial, especially given the impressive Open Source tools available. However, covering each tool's licenses or subscription fees can add up quickly. Add the cost of standard enterprise features like SSO and multi-tenancy, and your costs can soar to hundreds of thousands. A commercial platform will offer access to all these tools and key enterprise features for one monthly fixed price that can be more easily streamlined into an organization's budget.

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6. **Fast-track deployment.**

Another element when considering an operating system is the time to deployment. With an in-house team, deploying a new AI tool could take weeks after red tape, stack configuration, and rigorous testing. With a commercial platform, trying out a new tool takes five minutes with one click. The simplicity of use eliminates the need for data scientists to act as admins and reduces friction for non-DevOps engineers in getting their work into production.

Customer Story

EnPowered's Journey to Efficient AI Deployment

Discover how EnPowered, a cleantech pioneer, transitioned their machine learning development from individual laptops to the cloud, drastically enhancing their end-to-end model development cycle. By adopting a flexible and modular operating system for data infrastructure, EnPowered optimized DataOps and MLOps in the cloud, streamlining their AI solutions deployment and establishing repeatable patterns for routine data management and machine learning tasks.

"One of the biggest improvements, from an engineering perspective, is the speed with which the data science team is able to deploy their work. Before, development was a huge bottleneck, and it could take a week or two to deploy new models. Shakudo made a really big difference in terms of our ability to iterate and move quickly." – EnPowered CTO Mike Kirkup

7. Cut through the maintenance complexity.

Beyond the maintenance challenge of incorporating ever-evolving tools, these projects also handle massive quantities of data and have multiple logic sequences and failure modes, resulting in a maintenance nightmare. Data teams can easily spend 50% of their time maintaining their data pipeline. Even so, breakages are an inevitable part of the DevOps process. Sometimes, they take time to fix, especially with the complexity of the data stack. This is even more challenging when the logic was built by a previous employee, requiring the DevOps team to wade their way through a spaghetti maze of data. The problem is when they take too much time, and the business loses patience. What if they abandon your project for another solution? Your value as a CTO and the value of the work you put into an in-house solution will drop to zero very quickly. With a commercial solution, maintenance is automated. If something breaks, there is a quick fix, keeping your operations smooth and ensuring your team remains valued and relevant.

Buy vs Build: The Strategic Path Forward

The build vs. buy decision is a significant crossroads for CTOs and business leaders. In an era where data and AI drive business differentiation and success, the choice becomes not just a technical one, but a strategic imperative. By opting for a commercial AI and data OS, companies can leverage the best of technology with reduced risks, costs, and time-to-market, thereby aligning their tech decisions with long-term business objectives and ensuring a competitive edge in the digital landscape.

Maximize Your AI Potential with Shakudo

Discover how Shakudo can transform your AI journey with our state-of-the-art data and AI OS. Contact us for a demo and see firsthand how our commercial data and AI platform supports a broad range of data stacks across various infrastructures, allowing data scientists to develop, run, and deploy their data pipelines and applications in an all-in-one integrated environment. . Its purpose-built operating system will enable you to choose top-notch data tools tailored to your needs, on a platform that offers an end-to-end DevOps experience. This blend of premium data solutions and streamlined operations lets you zero in on leveraging data to drive real business value.

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ABOUT SHAKUDO

Shakudo creates compatibility across the best-of-breed data tools for a more reliable, performant, and cost effective data and AI operating system. As an operating layer on top of your cloud Shakudo allows you to pick the best-of-breed data tools for your needs, while providing a platform with fully automated DevOps experience. This combines the best of both worlds in data stack practices so you can focus on delivering business value with data.

Shakudo is the most **easy, secure, cost-effective, scalable** way to bring the most advanced data and AI tools to your data. Find out more at **shakudo.io.**