

How Utility Warehouse Upgraded and Centralized its Access Control System with Cerbos

Case Study



cerbos



"It's weird to say an outside company has our back, but Cerbos does. It's the people. It's their open-source code: it's high quality, you can read it, it does what it says on the tin."

ROB CROWE,
Principal Engineer,
Utility Warehouse

Utility Warehouse is the UK's only genuine multiservice provider. It offers the cheapest variable energy tariff in the UK and is a constituent of the FTSE 250 Index.

Highlights

Challenges

- Overhauling a basic and inadequate authorization system that lacked functionality
- Centralizing and simplifying access control
- Auditing and testing policies accurately

Solution

- Quick set-up with easy-to-understand code
- Comprehensive audit logs
- Version control for easy testing and validation
- Technical advice from an expert team

Results

- Centralized and secure access control system
- Confidence and peace of mind
- Bandwidth to focus on business tasks
- Power to move fast

Challenges

Upgrading a cumbersome in-house authorization system

Is it worth it for a FTSE 250 company with a team of 200+ engineers running over 4,500 services to scrap its in-house authorization logic and rebuild it with Cerbos?

For Rob Crowe, the Principal Engineer at Utility Warehouse, the answer is a resounding yes.

Utility Warehouse's internal authorization logic was 'long in the tooth'. Rob knew that there would be trouble down the road if his team didn't upgrade the system.



"We'd built an internal authorization software but we hadn't looked after it. It kind of worked but it was basic and a bit cumbersome," he recalls.

Utility Warehouse had YAML files in a GitHub repository that described role-based access control. But with 4,500 internal services, managing changes in business logic was getting hairy.

"We were using Scopes and they exploded. The JWTs were too big now to fit in browsers and cookies. We had to hack around it," Rob says.

When it was time to update or change authorization, Rob and his team had no way of knowing if a pull request was going to work.





"We had no way of testing our pull requests. If we thought it looked right, we merged it and waited to see if it worked," he says.

To make matters worse, there were many versions and implementations of authorization logic. Plus, the policy evaluation language was scattered across Utility Warehouse's code base.

"We realized that our 200+ engineers were doing their own thing, we didn't have a standard way of doing authorization," says Rob.

After making a list of Utility Warehouse's authorization challenges, Rob knew that they needed a centralized, secure, and SOC/ISO-compliant way of managing access control.

"As a FTSE 250 company in a regulated market, we had to do audit logs to understand why someone got access," he says.

This time round, Rob chose to work with an external tool to allow the engineering team to focus on the company's core business.



"We could have used our existing tools, but it would've required a lot of investment in something that wasn't our core business," he says.

Even though Rob and his team evaluated many options, they found that Cerbos was a natural fit.

"Cerbos is similar to our internal system, with a ton of extra features. It's open source and written in YAML, which we're familiar with. It fits with how we think about RBAC and ABAC," he says.





“We’d built an internal authorization software but we hadn’t looked after it. It kind of worked but it was basic and a bit cumbersome.”

Solution

Simple, robust, and secure access control solution

Getting started with Cerbos was so easy that Rob and his team used it successfully for 3 months without speaking with the Cerbos team. They started small and now cover important permissions in their software with Cerbos.

“We could get through 90% of Cerbos’ code within a couple of hours,” he says.

Writing policies is easy because Cerbos uses YAML which allows Rob to configure policies instead of coding them.



“Cerbos has a grammar in their YAMLs that we can trust. Whereas the one we had before was the wild west. It was thousands of lines of code,” he says.

Today, Cerbos gives Rob and his team total visibility into why a user is granted or denied permission. It also provides comprehensive audit trails that enable Rob to follow the evolution of access rules through time.



"One of our favorite features is the audit logs because it allows us to understand what is happening in the black box. We didn't know we needed that," he says.

Rob and his team don't have to worry about errors when they apply permissions. Cerbos has a version control policy that allows for testing with feedback.



"We've never been able to write tests and validate that changes are taking place, Cerbos allows us to do that," he says.

As a practicing engineer, Rob appreciates the technical expertise of the Cerbos team and their developer friendliness.

He relies on the Cerbos team for advice which has given his team clarity and made their authorization overhaul successful.

"We've said to them, 'I know this is not what your product does, but how would you do this?' and they have given us advice," he says.

For Rob, the Cerbos team stands out because of their expertise, honesty, and willingness to take feedback.



"The Cerbos team is smart, humble, transparent, and nice. Our relationship feels like a partnership, and everything they've built has answered a need for us," he says.





“One of our favorite features is the audit logs because it allows us to understand what is happening in the black box. We didn’t know we needed that.”

Results

Confidence, peace of mind, and the power to move fast

Thanks to Cerbos, Utility Warehouse has transformed and centralized access control. Rob and his team don’t have to wrangle a scattered authorization logic, everything is in Cerbos.

Rob is confident that Utility Warehouse’s authorization logic is accurate and secure which gives him unparalleled peace of mind.



“We have a proper tool to depend on and I trust Cerbos’ workflows. If the green tick says that it is built, then we know it should work,” he says.

Decoupling access control has given Rob and his team time to focus on building Utility Warehouse instead of trying to detangle permission logic.

He explains, *“Cerbos allows our team to focus on getting rid of technical debt and other business use cases instead of wondering how to write a policy evaluation language.”*



Choosing Cerbos has saved Rob from wasting precious time and empowered his team to move fast.

"If we had kept our old system for more than 6 months or a year, we would have been in trouble. Cerbos came along with a product that let us bootstrap and move quickly," he says.

Best of all, Utility Warehouse has found a perfect fit partner in Cerbos.

"It's weird to say an outside company has our back, but Cerbos does. It's the people. It's their open-source code: it's high quality, you can read it, it does what it says on the tin," says Rob.

For enterprise companies that want to centralize their authorization logic, Rob recommends Cerbos.

"Cerbos works really well. Definitely check it out because we haven't been blocked by the product," he says.

What's next for Utility Warehouse and Cerbos? *"My favorite thing is seeing what they cook up next that I didn't know we needed, but turns out we did,"* Rob concludes.



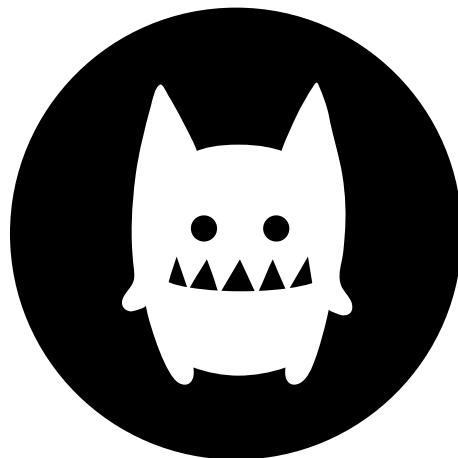
"We have a proper tool to depend on and I trust Cerbos' workflows. If the green tick says that it is built, then we know it should work."



The open source authorization layer for your product.

Model your requirements in Cerbos.
Get up and running in no time.

[Book a Demo](#)



cerbos