ALPHABET

 IcePanel

Alphabet can now make changes to their complex systems with confidence

🏢 Automotive, Enterprise

> " All stakeholders can now more easily digest the complexity of our landscape
>
> —————————
>
> Application Architect "

📋 Challenge

Before IcePanel, Alphabet recognized the inefficiency in their workflow that affected both engineering teams' and the businesses' ability to understand and communicate the complexities of their systems.

👤 Business pains

- What are we building?
- What do we connect to in the existing landscape when we roll out a new service?
- How can I steer product development without a view of the technical structure of my development?
- Why are there so many different views, formats, and templates?

💻 Engineering pains

- How does the low-level user story I am working on fit into the solution design?
- What is the solution design actually? Where is it? Do I have to hunt it down in confluence (other wikis available)?
- How does my domain link to other domains?
- Where should this object belong?
- Why can't I have a visualization of my services?
- Do I have any dependencies upcoming with the changes I will work on?
- What is a simple way to communicate all these designs?

🎯 Goal

Create a shared and consistent view of the business landscape at different levels of technicality, allowing people to explore in more detail if they choose.

IcePanel

Approach

Alphabet first introduced Structurizr, a tool developed by the creator of the C4 model and tested this approach between Q1 2021 - Q4 2021. Structurizr uses a text-based domain-specific language (DSL) method that allows users to create diagrams using text. Structurizr decommissioned the UI-based design tool, leaving many looking for alternative ways to render and maintain their model in a visual way, later deciding to open source it. This move was to allow Structurizr to focus on a diagrams_as_code approach to modelling and visualizing systems.

Alphabet wanted to take their existing model and diagrams from Structurizr and use a more accessible tool that didn't require technical abilities to access and maintain the diagrams - for this they came to IcePanel.

In Q3 2022 IcePanel created an importer to bring in all diagrams and the model into IcePanel which allowed Alphabet to maintain and show off their dynamic model in a visual way again.

We have worked closely with Alphabet over the last year to carve out a solution that gave them a consistent way to visualize their systems at scale and in a way anyone can pick up and understand.

Alphabet now uses IcePanel to drive design conversations across business groups and reduce the ad hoc diagramming that previously presented itself in meetings. This brings clarity to business and product teams and allows engineers to understand the designs to a finer level of detail.

Results

Stakeholders understand system design

Time saved with reduction of diagram maintenance

Faster architecture decision making

Conclusion

Alphabet has increased visibility between the engineering, product and business teams using IcePanel as a central resource for visualizing their architecture.

This increased visibility means the teams have a shared understanding and make more informed decisions from a common knowledge base.

The accessibility and ease of use mean anyone can jump in and learn from richer visual information, meaning teams and stakeholders understand more about how their systems work and the state of the architectural design.