

Title

Status [Draft | Final]

Authors:

Date:

Welcome to Design Docs! Anything in Italics should be replaced with your own words for your project. Make sure you share early and often, be receptive to quick feedback (use inline editing and comments, call people into comments by doing: [+username@domain.com](#)) and don't be afraid to co-author papers, version them, etc!

Good luck collaborating!

Overview

Here is where your “elevator pitch” goes. Explain the solution, but not in exquisite detail (that comes next).

Goals

A quick, few-line summary of the problem to be solved.

Non-goals

*Make sure you're not taking on too much at once. Scope your work by saying what you're **not** solving.*

Detailed Design

This section is where you write most of your idea, down to the nitty-gritty. Make sure you include schematics, code snippets, proposed algorithms, flow diagrams, protocol fields/details, API methods, sequence diagrams, etc. It's not the code, but it is close!

Relationship to other systems

Do you have dependencies? Sure you do. Do you have users? Probably! What about infrastructure and storage and all that other stuff? Make sure you call it out here.

Alternatives Considered

Make sure it is clear to your reader that you performed due-diligence and considered the other ways of solving the problem, and why you didn't go with them. (even if they're just as good, and

you had to just pick something). As people make suggestions, you can always add to this section!

Deployment Lifecycle

How will this system grow in time? Is this a one-time thing, or are there many milestones? How do updates make it to prod, what about data / schema changes? Do you foresee any migration events?

Caveats

It's all great exeeeecept for a few small details that we need to iron out. Put those here.

Rollout Plan

How will your new system first make it into production? Will there be a migration path for users? Do we need to watch its progress? How should we limit the blast radius / risk? How does rollback work?

Will there be an experiment phase to make sure it actually works well?

Monitoring Plan

How will you know the solution works the way you suspect? What about if a dependency fails, how will you know your system reacts properly? Can you debug it in production, in the middle of the night? Can someone else?

Logging Plan

What will you be logging? How much will that cost, how long do we have to retain the logs for? Can an operator temporarily increase verbosity? What if we turn off logging for a while?

Security and Privacy Considerations

Are you handling PCI data, PHI, or PII? What does that really mean to your system? Do you need advice from a Security or Privacy team on how best to scrub data or store things properly? Ask for help if you need it!

Performance/Cost Considerations

Will this result in the system being better, but a little slower? Or will it speed things up? Make everything 1% more expensive?

Capacity Considerations

How many computers will this take? How much Storage? Network bandwidth? Provide some estimates based on baseline expected load, as well as “extreme success” mode.

References

Version History

(or just use the Google Docs built-in named versioning)

Author	Version	Date	Comment

References

Example Design Docs:

- <https://drive.google.com/previewtemplate?id=1GjiCJCMJ7FtQHWvILSnPD9gdDAJhkjRzblvQjU1Wqug&mode=public>
- <https://medium.com/@cramforce/design-docs-a-design-doc-a152f4484c6b> - A design doc about design docs! Genius!