

BDIC Case Study Report of Distributed System of Google

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1 Overview

1.1 Introduction of Google

From Wikipedia [1]:Google is an American multinational technology company that specialize in internet-related services and products, which include online advertising technologies, search engine, cloud computing, software, and hardware. It is considered one of the Big Four Technology companies, alongside Amazon, Distributed System Report 3 Apple, and Facebook.

The company's rapidly growth with a chain of products beyond Google's core search engine Google Search). It offered services designed for work and productivity Google Docs, Google Sheets and Google Slides), email Gmail), cloud storage Google Drive), and language translation Google Translate), mapping and navigation Google Maps, Google Earth) video sharing YouTube). And the company lead the development of Android mobile operating system, the Google Chrome web browser. etc. Google is a specialist in world-wide scale information provider, as their mission statement said: "To organize the world's information and make it universally accessible and useful".

1.2 Why to choose Google

Google is specialist in working with big Data. This company has built numbers of successful large-scale products and those large large-scale system wont just work if no well-designed structure to support it and there must be a successful pattern to push the scale limits of the underlying system. For instance, Search, Youtube , advertisement and Gmail scale data dont just work, it need to be understand deeply and to iterate buildings these system. Distributed System are pretty much a solved problem for industry to work with large-scale data, so as Google.

Building a successful large-scale product means more than simply using systems that magically work. It is necessary to answer questions like what level of replication of data you need, how to design your system so that you can survive different failure modes, which of the existing systems to use in your product etc. The strategy of this company main provides several pro-grammatically implementation of the theory of distributed system. Google is truly facing questions distributed system designed to solve

2 Architecture of System Design

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2.1 Architecture

Examples of lists:

1. Numbered list item one
2. Numbered list item two

Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Table 1: Table caption

2.2 Scalability, Availability and Security

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Figure 1: Figure caption

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$$e = mc^2 \tag{1}$$

3 Distributed file system: GFS

3.1 GFS

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3.2 Communication Protocol

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4 Key finding Evaluation

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5 Conclusion

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References

- [1] Wikipedia. Google — Wikipedia, the free encyclopedia. <http://en.wikipedia.org/w/index.php?title=Google&oldid=928314051>, 2019. [Online; accessed 28-November-2019].

[1]