

## CASE STUDY



### Glowbl

To bring together all the social networks of its members, Glowbl transforms their data into graphs using Neo4j

#### COMPANY

Glowbl

#### INDUSTRY

Social networking

#### CASE STUDY

Social networking

#### IMPLEMENTATION OF THE TIME PERIOD SYSTEM

- For the real-time graph: 5 to 10 weeks
- For the social graph: 3 weeks

#### TECHNICAL ARCHITECT

Mathieu Labey, CEO and founder of Glowbl



### The company

A start-up created in 2011, with its headquarters in Lyon and offices in Paris and San Francisco, Glowbl offers a connected platform for video communication and collaboration that can be accessed in one click from social networks (Twitter, Facebook, LinkedIn, Yammer), or simply by sharing a personalised web address (URL).

The innovative and patented interface allows you to bring an unlimited number of online participants together, in an almost real environment. LiveStages, a unique meeting place for creating public or private events, offers users a virtual space to access multiple sources of content distributed in real time (documents, presentations, videos, images, music, etc.) through a host of collaborative applications (Instagram, YouTube, Slideshare, SoundCloud, etc.).

The Glowbl innovation opens up collaboration for personal and professional use, where each person can interact and collaborate in real time through videoconferencing, live tweeting and chat or sharing on social networks that just need to be synchronised. This deep connectedness makes the experience more human and engaging.

Since it launched its new dynamic interface in February 2015, Glowbl would like to extend its use and expand its community, currently made up of 60,000 users throughout the world, particularly in the US and China.

### Sector

Social and collaborative media

### The Challenge

Bringing together all possible social networks, representing all the contacts in the form of graphs and managing these contacts and their interactions in real time.

### The Strategy

Since its start-up in 2011, the actual model used by Glowbl was based on a representation of its users through graphs. Using an SQL database to represent and read graphs was almost impossible, even more so when it came to displaying complex requests. Glowbl soon felt the need for a graph database, which would allow them to update the user database in real time, and offer unlimited request capacity with very short response times.

Mathieu Labey, CEO and founder of Glowbl says: "The world is made of graphs. And IT is made up of lists. Neo4j, with its graph design, allows us to bring reality into the world of IT, otherwise a solution like ours wouldn't be possible."

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### The Solution

Once the decision was made to obtain a database of this kind, Glowbl had to find the right one. Among all the solutions on the market, they felt that Neo4j was the most complete and fully developed graph database.

Using Neo4j as the basis of the Glowbl solution offered unlimited possibilities for adding data in real time, producing messages for users and updating data in real time.

Mathieu Labey, CEO and founder of Glowbl notes: "Neo4j allowed us to design a competitive platform which shook up standards and the rules of the game. And all in one third of the time. Currently, we have a more stable and powerful platform that we can rely on as the basis for our development and growth."

Two independent phases of development were needed to integrate Neo4j into Glowbl: the **real-time graph** of spatial relations between bubbles and the **social graph** of social and behavioural connections between users.

For the **real-time graph**, the first phase was taken up with trials, prototypes and design. The implementation itself followed on from this. The server installation and the production deployment were relatively quick and simple due to the ease of use of Neo4j, which only requires a few specific configurations. Finally, Glowbl carried out a long-term optimisation phase, with a view to the use and performance it expected from this tool.

Regarding the **social graph**, first it had to be designed, then initial testing was carried out using the Glowbl data. This was followed by the implementation and optimisation phase, with the support of a Neo4j consultant. Now Glowbl has completed the final phase of integration and adding requests to the graph in order to produce a set of user recommendations.

Mathieu Labey says: "In both cases, the installation and configuration of the Neo4j graph servers turned out to be extremely standard and simple."

### The result

Mathieu Labey concludes: "For a concept such as ours, it is vital to offer real-time responses and to be capable of handling huge quantities of data. This is key to the real success or industrial failure of our model. In the 3 years we've been using Neo4j, not only has the data we process grown exponentially, but the Neo Technology solution has never had the slightest down time. We are therefore in a position to imagine a bright future and to continue to develop our functionality and the number of members."

Today, Neo4j allows Glowbl to process an enormous amount of data with total peace of mind.

For the **real-time graph**, the volume of Neo4j data depends on the real-time activity of the platform and is therefore proportional to the site usage. It also evolves according to the number of people connected, which makes it very dynamic. The flexibility of Neo4j allows us to identify the recipients of a message through the real-time reading of a graph when a user wants to talk with a group of people.

For the **social graph**, the nodes on the graph represent Glowbl users and all their relations (social network connections, contact requests) as well as their use of Glowbl (using LiveStage, events, etc.). The graph is thus used to send recommendations to users based on their usage or their contacts. This means the volume of data is extremely fluctuating but the system can handle massive quantities of data.

### Why choose Neo4j?

Glowbl chose Neo4j because it was the most complete and fully developed graph database, with the highest review ratings, of the 4 databases that the start-up considered at the time.

#### About Neo Technology

Neo Technology is the creator of Neo4j, the world's leading graph database, which brings relationships between data to the fore.

From personalised product and services recommendations, to websites offering social network features, network diagnostics for telecoms operators, and companies that have reinvented the management of reference data, user identities and access rights: the Neo Technology researchers, pioneers of graphic databases, have played a key role in making the power of graphs available to many international organisations. Large companies, including SFR, Meetic, Glowbl, Walmart, eBay, UBS, Nomura, the InterContinental Exchange, Cisco, CenturyLink, HP, Telenor, TomTom, Lufthansa and the National Geographic Society, as well as start-ups such as CrunchBase, Medium, Polyvore, Zephyr Health and Elementum use Neo4j to unlock the commercial value of data relationships.

Neo Technology is a privately owned company, financed by Fidelity Growth Partners Europe, Sunstone Capital, Conor Venture Partners, Creandum and Dawn Capital, headquartered in San Mateo (California). They have offices in Sweden, the UK, Germany, France and Malaysia. For more information: [Neo4j.com](http://Neo4j.com)

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