Lightbend

datylon

Made up of a fast-growing team of data visualization evangelists, Datylon's goal is to build a platform that enables companies to share their insights and tell stories via their data. Its cloud-based platform helps people collaborate and increase their data literacy by engaging with different kinds of data stories. With two working locations in Western and Eastern Europe, the team is hands-on and focused. It combines a startup's DNA with tons of practical experience in building cutting-edge software and SaaS solutions.

Data Visualization Innovator Datylon Leverages Akka for Beautiful, On-Demand Reporting

Executive Summary

Datylon was focused on building a next-generation data visualization platform that makes it simple for dispersed teams to collaboratively create detailed, easy-to-understand reports based on a company's data. This platform needed an intuitive, cloud-based service to enable designers, data specialists, developers, and business users across an organization to collectively build reports from diverse and distributed data sets. Datylon turned to Akka to build this highly distributed cloud platform.

The Challenge

The Datylon team primarily began their careers building data products for the Internet of Things (IoT) and Software-as-a-Service (SaaS) industry segments. However, in 2016, they realized the market had a deep need for data visualization beyond what was currently available from vendors like Tableau.

Specifically, most data visualization tools are challenging for non-data specialists. There isn't an effective way for core stakeholders, from designers to business users, to come together and quickly build customized, value-based reports. This includes enabling companies to embed reporting within their applications and provide an option to automate report creation without compromising the effectiveness of the designs.

Datlyon was committed to building a solution customers can quickly implement that serves as a collaborative platform while enabling an easy and effective means of communicating the value of a business's data, thus saving its customers significant time and money.

"Akka's capabilities made our platform development very smooth. It enabled us to get to market much more quickly. Our team found their model to be easy to learn, and the community was an amazing resource to which we could turn if we had questions or needed advice."

Erik Laurijssen, CEO, Datylon

The Solution

Datylon set out to build a platform that provided several critical points of differentiation from the current status quo for data visualization platforms. They turned to Akka as a foundation to deliver on specific design goals.

- **High-End Design Capabilities** – The solution had to provide beautiful, easy-to-understand reports that clearly convey data insights. This was easier said than done.
- **Democratized Chart Design** – All stakeholders, regardless of their function or technical acumen, can collaborate cross-functionally to easily build customized reports without the specialized skills or training of a data specialist.
- **Embedded Reporting** – Customers can embed reporting into their applications to deliver reports to parties outside their own companies.
- **Reduced Cost** – Deliver a better solution that is much less expensive than vendors like Tableau.

The Datylon team initially used Java to build their platform but moved to Akka because it is particularly well-suited for building highly concurrent, distributed, resilient, and scalable systems. All are ideal for Datylon's development needs.

The Results

Daytlon's Akka-based solution now serves a diverse set of more than 25,000 users, including enterprises, asset managers, tech companies, NGOs, and more. It can convert almost any type of data into reports for embedded reporting, automated reporting, and standalone reports.

Key benefits the Datylon team has been able to achieve using Akka as the foundation of its development efforts:

- **Concurrency and Scalability:** Akka delivers a higher level of abstraction for writing concurrent and parallel systems. In addition, Akka's non-blocking approach to concurrency allows for better resource utilization and scalability compared to traditional multi-threaded programming.
- **Fault Tolerance and Resilience:** Resilient systems that can recover from failures more easily. Akka applications automatically restart failed components, ensuring high availability – an attribute critical to Datylon's development goals.
- **Distributed Application Development Support:** Powerful clustering capabilities that make it easier to build distributed applications and support features like node discovery, load balancing, and data distribution across the cluster.
- **High Performance:** Efficiently uses system resources and enables applications to handle any number of concurrent tasks with minimal overhead.
- **Community and Ecosystem:** The ability to leverage a large, active developer community that provides extensive documentation, tutorials, and third-party libraries. This was extremely useful for Datylon's team as they moved through the development process.

With Akka, Datylon has built a powerful platform with a truly differentiated solution that allows it to stand out in a crowded market of data visualization options.

Visit **Lightbend** to learn more about **Akka** and our other product and service offerings.