FLEX4APPS

Deep customer understanding, backed by data

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Anybody in the industry knows that monitoring applications is important: you want to know how your apps are performing, both from a technical perspective, such as CPU usage, memory, errors, as well as from a user perspective. The problem today is that for many teams, monitoring and analytics is just one of the many things they need to do, with little technical nor methodological guidance. And collecting, storing, analysing and acting upon data from larger, distributed systems is not that easy.

The forming of the Flex4Apps project, gathering 11 partnes from Belgium and Germany, at the end of 2016 was paralleled with an increase in containers and serverless paradigms, making the monitoring challenge both harder and easier: harder in the sense that there is even more to monitor because there is more that can go wrong, and easier because the same building blocks allow for a team to build performance monitoring and analytics systems for themselves, at a reasonable cost.

Impact highlights

- Nokia brought down the monthly costs of fixing bugs detected in both early and late development from over 16,000 euros to 1,900 euros – a yearly saving of 180,000 euros.
- For Unifiedpost, the success of this project has led in 2021 to the creation of a dedicated data warehouse and machine learning project team of 15 persons, expanding on the original ideas and assisting in the rapid growth of the company.
- Flex4Apps enabled the SME DataStories to grow from 6 to 18 employees.
- evermind, which has connected Flex4Apps to the home automation platform Eigenheim Manager, has increased sales by 50-100,000 euros per white-label customer.
- Genode predicts a 200% growth in licence revenue within two years, with the smart home market expected to be worth 19 billion euros in Germany alone by 2025.
- The SaaS tool Survey Anyplace has increased their conversion rate by 33% and their activation by 54%.

Project results

The Flex4Apps partners built reference architectures, providing template solutions for dealing with monitoring and analytics, and they developed the methodological support to help teams leverage these. For the reference architecture, they opted to make this available via one-click installs and they have published some of their work in a publicly available GitHub. The methodological insights were bundled in the book “Hyperscale and Microcare, the digital business cookbook”, written by Nick Boucart and Peter Verhasselt from project partner SIRRIS. The book is now in its third print already, with over 1000 books sold to date.

The main innovation generated by IMPONET laid in the advanced real-time architecture that contained a dual model of publish/subscribe and request/response data exchange mechanisms in which data access allowed interoperability between the different data models, while making extensive use of big data technologies for the processing of huge volumes of information gathered from the electricity grid.

Exploitation

Thanks to improved monitoring and analytics, project partners were able to serve their customers better, yielding improved retention and customer satisfaction as well as, in some cases, even better, sharper pricing of their offerings.

Project partner Unifiedpost (formerly Inventive Designers) has been operating a Flex4Apps inspired platform in production for several years now. While it was initially used as an internal tool to support product management and customer support for one particular product line with both premise-based and cloud services, today the company is using the platform to provide daily business value and insights across several important product lines. This data helped the technical team to find the cause of a very rare race condition occurring in production, while giving sales a detailed view on actual product usage, resulting in better tailored contact with customers. Since its inception, it has required very little upkeep and has kept on churning through the masses of received data with ease.

In terms of improved services, the Belgian SME DataStories is now using Flex4Apps’ automated algorithms in 25-30% of their projects, allowing them to move into data-driven product management and take on more complex assignments.

Genode’s home automation use-case has reduced their trusted computing base by a factor of 20%, making an exhaustive examination of its code base feasible, and has grown their customer base on ARM by 70%.

The project partners didn’t limit themselves to impacting only the partners in the project. By publishing their reference architectures, others can benefit from their insights too. This is testified by the Fintech start-up STOKR, a crowd investment platform powered by Ethereum Blockchain. Flex4Apps greatly helped the team to untangle initial complexities related to the technical architecture of the platform. Flex4Apps perfectly understood the need of complex financial platforms like STOKR and provided the right advice.

The open approach of Flex4Apps, combined with the innovative nature of the framework, will play a crucial role in the digital transition. In the future, a company’s most valuable intellectual property will be its deep customer understanding, backed by data, rather than its technology. Companies that take up Flex4Apps stand to gain the most from this insight.

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PROJECT LEADER

Till Witt, NXP Semiconductors Germany

PROJECT START

November 2016

PROJECT END

October 2019

PROJECT WEBSITE

https://itea4.org/project/flex4apps.html

PARTNERS

Belgium		*Germany*	
Datastories International	⊙	evermind	⊙
Unifiedpost	⊙	Fraunhofer	○
SIRRIS	○	Genode Labs	⊙
Survey Anyplace	⊙	HiConnect	⊙
		Nokia	◉
		NXP	◉
		Provedo	⊙

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