# Roche Appzone: A sound solution for sharing knowledge worldwide

Roche is a global player in the pharmaceutical industry with more than 100,000 employees worldwide. In such an international company it is not uncommon for one scientist to develop an app for their specific needs and then for that app to be beneficial for Roche scientists worldwide. Only problem: Scientists are not always aware of similar efforts being made at other locations. In order to create synergies, avoid double and additional work, and to support employees in the provisioning of apps, Roche has tasked blu BEYOND with creating the Appzone. It allows apps to be deployed in a matter of minutes, while at the same time serving as a central app platform for the whole organization.

We spoke with Prateek Kumar Choudhary, Data Engineer at Roche, about the process, success, expectations, and outlook of the project.
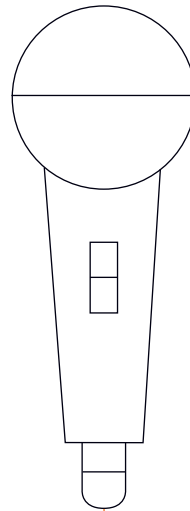
What was the initial impulse for this project?

The project actually began as a side project to another project I was doing at Roche. We were using a similar technology stack as other members of the team and I realized that it was very difficult to procure a server and deploy an app. Even if there was just an issue with the code of an app or a change had to be made to the code, it was a very lengthy process. You always had to wait for every step of the process to finish first. And even though you were repeating the same thing over and over again, this was very time-consuming and tedious. It could easily take up to 90 minutes, for an app to be published. Our scientists spent a lot of time trying to build their application and deploying it through a platform in order to bring it to the user. So there was definitely a need for a more efficient solution.

After identifying the needs, how did you get to the actual solution?

What we did was to try to automate the build and deployment process – both, in our team and in teams across Roche. The prototype was a simple solution built using just one language. But once we created that prototype, people really started to show interest. So, we realized that we needed to build something new, with less limitations. Something that was broad enough to cover all the technologies used by developers and that was end-to-end available to all user groups – product owners, IT, app developers, and users.

> Our goal was to make the solution available to all scientists within Roche, to make it easily accessible and to give it a nice, intuitive user interface.

And that's when we turned to blu BEYOND for support.

How did the collaboration with blu BEYOND come about?

Roche has worked with blu BEYOND in several other projects previously, where they supported us with their knowledge and manpower. They had also developed the initial frontend for the first prototype of the Appzone and we were very happy with their work. But when we built the first prototype, we didn't realize there would be such high demand for it. So once we did, we knew we needed a more global solution to address all the needs of our target users. And blu BEYOND definitely has more expertise in developing something like this. After all, they already had a similar solution in place with another global client of theirs. So we knew they had the knowledge and experience to handle a project like ours.

How did the development of the Appzone move forward?

When blu BEYOND took on the project, they used a very holistic approach to it. They did everything step by step in a very systematic way, starting with requirements engineering and interviews with developers in order to figure out what the wants, the needs and the nice-to-haves are. Together with us, blu BEYOND developed a vision of the Appzone defining what it should be and look like in the future – always based on their knowledge and experiences of working within a corporate structure. They were able to identify and tackle many hurdles beforehand, allowing our scientists to develop their apps and directly deploy to the platform. So all the issues of how to get DNS records, firewall rules or general rules and guidelines are handled before the app gets deployed to the Appzone.

What is worth mentioning about the collaboration with blu BEYOND?

What I really like about blu BEYOND is their very organized and structured way of leading the project. They planned everything out well and then executed that strategy. The development team is staffed with very experienced team members – any problems or issues are immediately handled. To give you an example: We currently have a limited number of key users to test the apps. One of them faced an issue the other day. I checked it out myself, couldn't solve it, and forwarded it to blu BEYOND the next day. One day later they were already working on it and responded with positive solutions. The response time is really amazing and the knowledge that they have is impressive.

How was the project received so far?

We actually have lot of different teams worldwide already interested in the project. We have a certain number of key users who are testing out the solution and they are very happy with it. There are a lot of features in the solution that they have never even thought about, but that are very useful for them to have. – So blu BEYOND did a great job with the preliminary interviews and the feature engineering.

Can you give us any example for those features?

For example, we have a logging system in place which allows users to directly see the logs for their own applications. Before, they could see the logs in Google Cloud, but doing so is a complicated process and requires them to first obtain access to the infrastructure. It was my task to recover those logs – and that created a virtual bottleneck that wasn't really necessary. Displaying the logs directly in the Appzone freed up some of my time. Another example is a resource monitoring system that we have in place. It shows the amount of memory/CPU that an application is using. To be honest, all developers like to have that kind of information even if they don't use it often. But there is actually a practical use for it, because if an app takes a lot of capacity on the server, you can choose to move your application to a different type of server which has more resources to it. So that really helps free up some resources on the servers and speed up processes.

Which improvement did the solution already bring to the people involved?

To give you some numbers: Previously, when a scientist wanted to deploy an app – after he had solved all the issues like which technology to use, where to host the app etc. etc. – it took up to 90 minutes to run through the technical process of deploying the actual app. Now the whole process takes only about 10 minutes. App developers only need to do two things now: 1. They need to get developer access to the Appzone, which is a very easy self-subscription process, and 2. They need to be able to dockerize the application and push it into a repository from where the platform fetches those images.

What are your hopes for the solution in the future?

Our hope is that   the Appzone creates a centralized space for all of the applications at Roche.

If it gets adopted globally, then all apps will be available on one centralized site. So whenever someone has a need for an app, they can go to the site and check if there is already an app that serves their purpose. The Appzone also creates more awareness globally of what is happening elsewhere at Roche. The goal is to publish around 100 apps to the Appzone per year, companywide. Once we have rolled-out the Appzone and we have more users, I am sure we will involve blu BEYOND again, e.g. supporting the users with dockerizing their apps and extending the Appzone with more functionality.