Moving to the Cloud Doesn't Just Mean Copying There an Old App

In the interview for ITBIZ Patrik Horny, partner at Stratox Enterprises answers the questions Why does simply moving old applications to the cloud often fail, why can this transition be more expensive than running them on-premise, and how can these pitfalls be avoided?

Q: The transition of companies to the cloud has accelerated over the past few years. Which companies are most affected, and what financial benefits can they achieve by moving to the cloud?

Patrik Horny: The trend towards the cloud has been going on for over a decade now. The initial idea was to take the systems from our own data centers, move them to the so-called cloud onto infrastructure we essentially don't see, and have someone else manage it for us, hoping to save money in the process. This was based on the assumption that what worked in the data center would function in the cloud. However, these expectations have not been met. We see that instead of moving what we once had, it's better - even necessary - to move a refreshed application. Only then can we achieve some savings on application operation, maybe more than fifty percent.

The reality is that simply transferring an old application to the cloud results in higher costs than before. At Stratox, with CodeNOW, we're working on preventing such surprises. We prepare businesses for this transition, not just moving the old into the new, but migrating in a way that the application adapts to the new environment. Or, we break it down into smaller parts, newly built, and transfer them to the cloud one by one. Importantly, a cloud environment can be set up “on-premise” – the cloud isn't just a "different" data center, it's primarily about the scalability functionality and the possibility of continuous, uninterrupted development and maintenance of applications – not just in native cloud.

Q: What can accelerate the transition to the cloud?

Patrik Horny: When the transition to the cloud is done correctly and the application is broken down into smaller parts, the larger problem is concurrently broken down into a series of smaller ones, and with such proper division, it's possible to move to the cloud very smoothly. Many new tools tailored for this

purpose help facilitate this whole transition and orchestrate (manage) it. They also make it possible to securely sustain the subsequent operation of the application and monitor what's happening with the application in the cloud.

However, a stumbling block often emerges here – these tools can sometimes cost more than the actual cloud infrastructure itself.

Q: What can slow down the transition to the cloud?

Patrik Horny: Trying to push the old into the cloud definitely doesn't work. Clients then struggle because their systems often simply don't work technically in the cloud. And when they do, it's often more expensive than in the original environment. Subsequent discussions about how to fix it and put things right take a long time. The preparatory phase with the decomposition into smaller parts is underestimated, as well as the potential problems with introducing entirely new approaches. Especially with the microservices, cloud-native approach, only then can migration to the cloud be accelerated.

Q: Does that mean that hardly any organization can manage the transition to the cloud on its own? How do they choose a suitable cloud provider and implementation partner?

Patrik Horny: The idea that you mainly need to choose a “cloud provider” is a common misconception. We always say, if you want to go to the cloud, first try out how the functionality you want to move can look in the new environment, how to build it anew. Most of the time, you find out that you have to completely remake the old thing. This is not done by choosing a cloud provider, saying that you're going to Microsoft's Azure, Amazon's AWS, or somewhere else.

Instead, you have to test new tasks, program them anew, or possibly migrate them in parts to individual clouds. It's essential to select a tool environment that will allow this and support the operation of the new application. Only then will you see if the pricing model offered by these tools works with what you actually want.

I'll provide an example; you may purchase the same capacity in the cloud as you had so far in your own data center. However, you also need monitoring, and in the end, this can be up to ten times more expensive than the purchased cloud

capacity for operation. You only discover how much monitoring capacity you need based on a real test when you see a piece of the software that you are operating in the cloud. Only then can you decide which monitoring tool to take and how to set it up.

You can't fixate on individual cloud providers, instead, you should watch which tools and which provider are cheaper for your software in balance. In the end, you may operate in a multi-hybrid environment and have multiple cloud providers, because for a piece of your functionality, the Amazon AWS environment works best, for others, it's Microsoft Azure, and you can keep a piece in your own data center, which you also have to adapt to the cloud operating method.

What challenges are associated with the operation of applications in the cloud, and what benefits does the CodeNOW platform offer?

Patrik Horny: The key challenge in operating applications in the cloud involves breaking down old large units into smaller ones. This process, known as decomposition, revolves around customer experiences or events. Microservices are then created around these events. If we can break down an old functional unit into small microservices, we create a microservice architecture. This architecture enables us to gradually turn off the old units and turn on the new ones already in the cloud.

To facilitate such a migration, we created the CodeNOW platform. It helps manage the increasing complexity of decomposing large parts into small ones. CodeNOW is a platform that automates many individual activities for developers, freeing them from having to figure out how to set up individual specific cloud processes. CodeNOW monitors and automates the creation of a whole from microservices.

The management of microservices is demanding, and the entire process is only feasible through tools that automate it, like CodeNOW. In the cloud, some actions, which are unmanageable manually, must indeed be performed automatically. The goal is to offer developers a comprehensive solution to help them navigate the complexities of cloud migration and operation, thus ensuring the best results from their cloud efforts.