



Business challenge

DTWISE needed to re-architect its software to make it easier to update, add new features and deploy. It needed a Kubernetes platform that could help it meet a tight deadline for an important customer.

Transformation

With just four months to deliver a new version of its software to an important client, DTWISE needed to convert its existing application to microservices so it would be easier to update and maintain. The company used the IBM® Cloud™ Kubernetes Service to containerize and deploy its application, resulting in faster deployments and increased uptime.



Spyros Tzovairis
 Chief Operating Officer
 and Chief Technology
 Officer
 DTWISE S.A.

Results

One year of continuous uptime

since deploying its application on the IBM Cloud Kubernetes Service platform

Reduces deployment times

for new infrastructures by at least 20%

Simplifies onboarding of new staff

because the microservices architecture is easier to understand and update

DTWISE S.A.

IBM Cloud Kubernetes Service supports rapid transformation to microservices

Founded in 2014, DTWISE is a privately-held company that develops comprehensive data management solutions that help utility providers, logistics companies and other customers gain real-time insights into their energy consumption. The business gathers and analyzes data from Internet of Things (IoT) devices, and its primary route to market is through utility providers who white-label the DTWISE service and provide it to their customers. DTWISE is headquartered in Athens, Greece and employs approximately 10 people.

“We felt confident that IBM Cloud’s scale and reputation would help us meet the contracted SLAs for our major new customer.”

— Spyros Tzovairis, Chief Operating Officer and Chief Technology Officer, DTWISE S.A.

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Monolithic application poses challenges

DTWISE delivers software that helps organizations become more energy efficient. “What we do is data-driven energy efficiency,” says Spyros Tzovairis, the Chief Operating Officer and Chief Technology Officer at DTWISE. “So essentially we’re turning data into insights. And we help our customers save energy and money.” The business was growing, and it had committed to delivering a new version of its software to Elpedison, one of the three largest utility companies in Greece. DTWISE had just four months to meet this deadline.

The existing software architecture at DTWISE was causing pain points that the business needed to resolve to meet its deadline with Elpedison. “It was difficult to create new features and to expand the capabilities of our software,” says Tzovairis. “It was apparent that we had to split up the services within our monolithic software.”

DTWISE had determined that it needed to adopt a microservices-based approach to make it easier to deploy new features and support future growth more quickly. The business decided on Kubernetes so

it could leverage the power of microservices while simplifying the management of services and the underlying infrastructure. But with just four months until its deadline, DTWISE needed a managed Kubernetes service that it could get up and running quickly without having to set up and maintain it themselves.

Cloud-based solution supports transformation

DTWISE chose the IBM Cloud Kubernetes Service on IBM Cloud. “We felt confident that IBM Cloud’s scale and reputation would help us meet the contracted SLAs [service level agreements] for our major new customer,” says Tzovairis.

The company worked with the IBM Cloud Services team to begin using the Kubernetes service, but then was able to quickly deploy its new containerized application to the Kubernetes service on its own. Using the Kubernetes service simplifies the management of dependencies. “You just select the right configuration once and then you don’t have to deal with it again,” says Tzovairis. “You can just rely on Kubernetes to make sure that the service that you are looking for will point to the right container. It’s very easy.”

DTWISE created a separate Kubernetes “pod,” or group of application containers, for each of its approximately 20 microservices. Because each service is deployed in its own pod, the business can update an individual service without taking down the entire application, which makes it much easier to add new features and updates. The IBM Cloud Kubernetes Service solution provides scaling functionality, so pods are automatically scaled as needed. The IBM Cloud Kubernetes Service also includes a built-in vulnerability advisor that helps the company stay on top of potential security issues. DTWISE is also using IBM Cloud Object Storage to store its application data. The business is also looking forward to using IBM Watson® for its recommendation engine, which essentially acts as an AI energy efficiency advisor.

Significant improvements to uptime

Since implementing the solution, DTWISE has improved its uptime. In fact, the business has had continuous uptime for one year. “A microservices architecture has helped us make significant improvements to uptime, which is a critical consideration for our customers,” says Tzovairis. “Since everything is in different pods, a single outage does not impact the

service as a whole.” The initial deployment of the new infrastructure was very fast. “We deployed our infrastructure in a single day,” says Tzovairis. “In the past, it would have taken a week.” As it makes updates and changes to its application, the business estimates that it has reduced the amount of time needed for these types of deployments by 20 percent.

Another benefit to the solution is that it has simplified onboarding of new staff. As DTWISE continues to grow, it has been hiring new team members. “With the managed IBM Kubernetes solution, we have a much easier learning curve for our new team members, says Tzovairis. “It’s easier to understand our architecture. It’s clear to the new people what each service does and how the services work together.”

Solution components

- IBM® Cloud™
- IBM Cloud Kubernetes Service
- IBM Cloud Object Storage
- IBM Cloud Services
- IBM Watson®

Take the next step

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