

## DATA MIGRATION PLAN TO STRENGTHEN HEAT TREATMENT SOLUTION PROVIDER



### OBJECTIVE

*Create data migration plan including architecture diagram and cost assessment for efficient infrastructure operating.*

### CHALLENGE

The Intetics Client is the international market leader in terms of heat treatment furnaces and plants with production sites in Europe, America and Asia. The Client's products are used in the fields of atmosphere, vacuum, plasma, solder and sinter technology, and these products are supplied to hardening plants and companies from the following industries: automobile, medical technology, aerospace tooling and mechanical engineering.

Among Client's best deals was working with Elon Musk to make a part of a Shuttle. Every furnace has lots of different trackers (temperature and vibration measuring, process monitoring, failure prevention). All these trackers are connected to one big computerized system that controls the whole process and in case of emergency can operate themselves. The furnaces could

be remotely controlled and be integrated into the company's infrastructure.

The company needed a centralized system to manage all devices across their locations in more than 30 countries. The Client wanted to conduct data gathering from the trackers, make market analysis, predict changes in the industry. The Client faced the challenge of tech expertise shortage to streamline the data from different local ERP systems, that were just accumulating the data without aggregating it. Intetics was chosen to address this challenge.

### SOLUTION

From the very project start our Client gave Intetics team a company's tour to assess the scope of work, evaluate the infrastructure sizes, consider the system load and data transfer. Visiting Client's facilities laid the groundwork for the good relationships and later on was maintained by regular meetings with ongoing requirement discussions. To better understand the Client's business our Team conducted a deep research including the Client's basic view on the future infrastructure. The Client had an idea to transfer all the information from IoT devices to the Cloud, make calculations on

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this basis and decide which details and in what amounts they need to produce. In the long term they planned to predict the furnace failures. The Client wanted to understand our expertise, so they provided us with their minimal technical configurations from the beginning. After tapping qualified DevOps, our team entered the Analysis Phase.

Intetics DevOps engineers built the infrastructure layer by layer: created a high-level deployment structure, assessed required hosting, calculated the cost of ownership and support at every stage, and the whole project cost plan for the next three years.

As the Client didn't have any statistics on system loads and data volume, Intetics team needed to gather and process the relevant data in real-time. The Intetics team created the architecture models, calculated the price rates, drew diagrams on data migration to the Cloud. More than 10 thousand trackers were connected by creating multi-tier architecture by transferring the whole infrastructure to the Cloud. Our innovative solution was built in Microsoft Azure. The created solution got positive feedback from the Client.

## RESULTS

As a result, the Intetics team created a deployment diagram and a Cloud transfer plan, which was highly appreciated by the Client. Microsoft Azure Cloud was used as an innovative public cloud computing platform. It provided a range of cloud services, including those for compute, analytics, storage and networking. In addition to MS Azure more than 40 different services were used in the Analysis Phase.

A scheme of the created infrastructure deployment diagram is shown below.

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