Case Study

Private cloud for logistics software

Business continuity

Disaster Recovery

About the client

Omecon provides dedicated IT solutions designed for operational optimisation in distribution, logistics and transport. These include mobile, web and database applications and reporting systems based on Java technology and microservices architecture.

The full range of services includes the design, implementation, maintenance, development and consultancy of applications for:

- Linear transport management (TMS),
- Route and delivery optimisation,
- Yard management and delivery advice (YMS),
- Last mile handling,
- Support of e-commerce processes,
- Support to field staff (SFA).

Omecon's customers include numerous logistics operators and trade and distribution companies, such as: **DPD, GLS, Pekaes, British American Tobacco and Euronet.**

Client's needs

Omecon also offers systems in the SaaS model, which entails a stable and manageable IT infrastructure.

> We were looking for a solution with high reliability, which at the same time would allow us to maintain configuration flexibility and easily create dedicated systems for our clients.
>
> Another important element that we took into account when selecting a Data Centre service provider was the competence of the technical team - so that we could take advantage of this expertise and thus not build competence on our company's side.

Bartłomiej Raczyński
Managing Director, Omecon

Selected solution – cloud for logistics

After analysing the services available on the market, Omecon chose the cloud for logistics and decided to embed its production environment on the **physical hosts** in a Dedicated Private Cloud service.

It was also immediately recognised that the environment needed to be further secured with a Disaster Recovery solution, which is now becoming the standard for ensuring business continuity.

> For the duration of the PoC, MAIN created a private cloud environment on shared hardware resources. In the meantime, the infrastructure for the dedicated environment was being set up.

Michał Barczewski
System Engineer w MAIN

Implemented environment

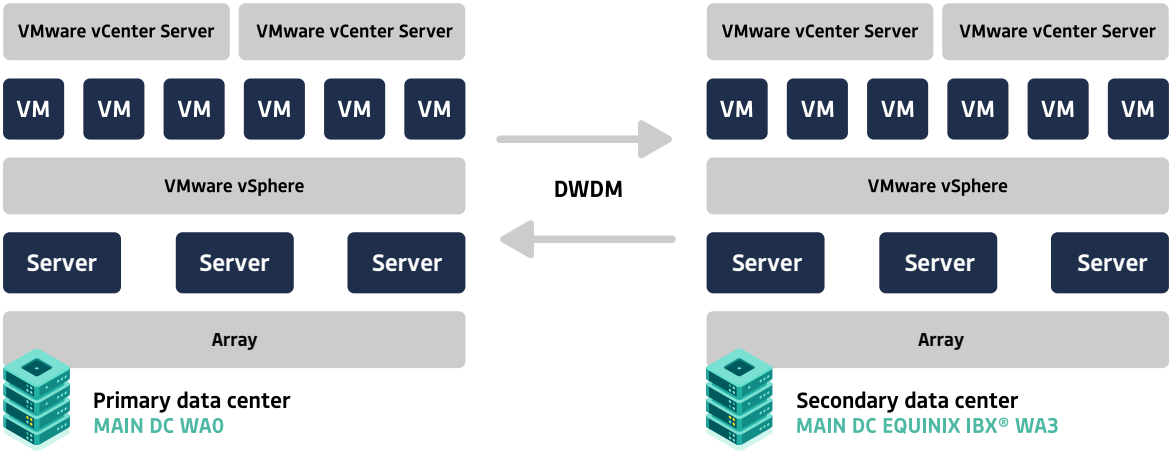
The primary cloud centre for logistics is located in MAIN's primary data centre in Warsaw, with the secondary data centre in Equinix IBX® WA3, also in Warsaw. Both house three servers each, IBM arrays and network infrastructure (switches and firewalls). Several separate networks have been set up, dedicated to both production machines and the physical environment.

> We have based the dedicated environment on two mirrored sites with high performance and providing High Availability (HA).
>
> They are fully redundant, resilient to a single point of failure and interconnected with LAN and FC.

Łukasz Studziński
System Engineer w MAIN

Replication between sites and data encryption are done at the array level.
The mechanism for switching between sites is based on VMware Site Recovery Manager.

It allows groups of machines to be created and automated switching between them according to specific plans in the event of a disaster. This ensures that testing of recovery plans does not disrupt system operations and makes complex manual recovery procedures unnecessary.



In addition, the entire cloud for logistics is connected to monitoring, which ensures:

- Informing about problems and failures in the infrastructure in real time,
- Achieving High Availability (HA),
- Information about performance problems.

The developed notification system allows infrastructure failures to be counteracted and preventive measures to be taken.

Environment management

In the case of the cloud for logistics developed for Omecon, the tasks of maintaining the environment were **split between the MAIN and Omecon teams.** On the MAIN engineers' side is the management of the physical hardware. The activities they perform include:

- Configuration of switches, firewalls and arrays,
- Server administration,
- Monitoring of all hardware.

Management of virtualisation and operating systems is carried out in cooperation with the client and includes:

- Management of access policies on the firewall,
- Configuration and updating of hosts and networks,
- Creation of virtual machines,
- Creation of backups,
- Configuration and updating of operating systems and applications,
- Monitoring of the virtual environment.

Client testimonial

The new environment facilitates management and ensures high security of processed data. The architecture developed with MAIN offers great potential for rapid scaling of the solutions we make for specific implementations of our &UP® system.

Every &UP® implementation is different, every client has different requirements and needs - not only functional, but also related to meeting high security requirements and IT infrastructure configuration.

When selling the &UP® system in the SaaS model, where, for example, we integrate with the client's existing systems, the appropriate adaptation of the IT environment is very important and absolutely required.

MAIN provides us with a high degree of configurability in terms of network infrastructure, flexibility in creating backup policies or secure ways to connect to the system. Their team supports us in developing the best infrastructure solutions for our clients, based on the environment we have set up for us.

Bartłomiej Raczyński
Managing Director, Omecon