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Digital dexterity keeps mission-critical work running for Alstom

Like so many, Alstom, a manufacturer and services provider for the rail transport industry, had to quickly move employees from company offices to remote and home spaces in just days. Working closely with DXC and our partner Microsoft, here's how Alstom, headquartered in Saint-Ouen, France, did it.

Q. How was Alstom able to navigate such a monumental disruption to its workplace?

A. Since the beginning of the COVID-19 crisis, Alstom has been able to massively work from home without disruption thanks to our ATAWAD (anytime, anywhere, any device) strategy, which was tested for more than two years, and the scalability of our cloud solutions based on Microsoft Azure.

Obviously, Office 365 has permitted all Alstom employees — suddenly remote workers— to access files, collaborate remotely on shared data, and stay connected with colleagues using Microsoft Teams.

Q. How was Alstom able to shift operations so quickly and effectively so that mission-critical work could still be done?

A. We improved our remote capabilities so our engineers can still design and develop our products from home.

For example, thanks to Azure we were able to implement a full virtual desktop infrastructure (VDI) 3D solution from scratch at the onset of the crisis. The aim was to connect remotely to our engineering applications — mostly Dassault Systèmes CATIA and DELMIA — and enable our engineers to use demanding software from home, even with a simple standard laptop connection, since all the computation and graphical rendering are processed by virtual machines (VMs) hosted in the cloud.

We had to select the right VM size and technical specifications, especially the graphical power unit. The Azure NV family provides the appropriate graphical power units to support the heavy 3D rendering needs of our engineers. Using Citrix Virtual Apps and Desktop Services, we managed a large scale, automatic deployment of the machines on demand.

To secure access to this critical environment, we leveraged the security features the Microsoft ecosystem offers (e.g., Azure Active Directory or Multi-Factor Authentication), plus additional third-party components that we were already running.

Q. What have been the most surprising and beneficial aspects of expanding to the cloud?

A. We implemented this solution in record time: it was in place in less than a week in the Western Europe Azure region. Thus, we opened this new service to our 2,000 engineers the first week of the lockdown in Europe. The key success factor was the extreme elasticity of the cloud, which enabled us to grow rapidly and adjust the capacity in accordance with the number of countries imposing confinement, day after day.

Two weeks later, we successfully extended this solution to Southeast Asia, even though deployment in the region was not planned until mid-2020 in our initial move-to-cloud plan – the time to expedite the implementation of the Express Route in Singapore and to configure our full stack of infrastructure/security components in Azure.

This crisis shows how instrumental the digital transformation of business and a clear cloud strategy are for a global company to succeed in an uncertain world. Without this digital dexterity, it would have been impossible to face such an unprecedented situation.

Q. What role did your partnerships with Microsoft and DXC play?

A. Nowadays, an organization must be ready to work from anywhere, securely and without limitation. For Alstom, this is possible thanks to our partner Microsoft, who always supports Alstom's implementation of innovative and scalable solutions. Being able to count on your service integrator is also essential. In our case, DXC reacted fast and worked hard with our team to make it possible.

About Alstom

A global leader in the transportation sector, Alstom offers a complete range of equipment and services, from high-speed trains, metros, trams and e-buses to integrated systems, customised services, infrastructure, signalling and digital mobility solutions.

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