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Business challenge

Elecnor S.A., a global construction company, needed to enable its workers to access, use and manage complex building project information from anywhere, on any device.

Transformation

Elecnor turned to IBM Business Partner SimpleCloud, which deployed its virtual desktop solution hosted on IBM® Cloud® in less than one hour. Now, Elecnor's global employees can manage complex construction projects on any device, even at the most remote building sites.

Jon Blázquez
Director of Informatics and Technology
Elecnor S.A.

Results

~ 1 minute to access a provisioned virtual desktop
for high-performance computing in an environment built for security

< 1 hour to deploy a new work environment
to manage complex projects from anywhere

60 percent potential cost savings
compared to investing in tools, workstations and rendering clusters

Elecnor S.A.

Manage complex projects in a remote work environment

Elecnor is a leader in infrastructure development, construction and operation in the industrial, railway, gas, renewable energy, telecommunications, technology and other sectors in more than 50 countries around the globe. Elecnor has two primary businesses: infrastructure, which includes the execution of engineering, construction and service projects, and concessions, which involves the promotion, search for financing and management of power transmission and generation assets. Founded in 1958, Elecnor is headquartered in Madrid, Spain and has 13,000 employees.

"The SimpleCloud platform allows us to create projects on demand, flexibly and without the need for additional investments in new IT infrastructures."

—Jon Blázquez, Director of Informatics and Technology, Elecnor S.A.

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Complex building plans require computing power

Elecnor is a global leader in infrastructure development, construction and operation in the power generation, telecommunications, rail and new technology sectors. It manages complex, multi-site projects where workers need access to detailed building plans.

No longer do site managers walk around with rolled up blueprints under their arms. Digital Building Information Models (BIMs) contain all the information about a building or site. To use and manage these complex models, Elecnor employees need access to high-performing computer systems—not just at its headquarters, but also in the field. Project managers must coordinate multiple teams working at different sites, so they need mobile access to the BIM.

"There are two critical factors in the engineering and construction environments," says Olivier Wolff, Chief Executive Officer at SimpleCloud. "The first is that they use very complex models with high graphics processing unit (GPU) requirements. The second is that they need to access these maps and 3D renderings from anywhere on their construction sites, not just in the office from a big PC sitting with a dedicated internet connection."

Elecnor needed a computing solution that would enable its workers to access complex project information from anywhere, on any device. In addition, it needed the high-performance computing power necessary to complete complex tasks, even in the field, without increasing infrastructure costs.

Virtual desktop gives anywhere, anytime access

Elecnor met with a team from SimpleCloud to investigate its virtual desktop solution for Architecture, Engineering, Construction and Manufacturing (AECM). SimpleCloud proposed its virtual desktop solution, run on IBM bare metal servers on IBM Cloud, to allow Elecnor to access and use complex BIMs from anywhere on almost any device. SimpleCloud's solution uses VMWare Workstation software to create the virtual desktop, and IBM Aspera® software to enable high-speed sharing of even the largest files to facilitate team collaboration in Elecnor's remote work environments.

After a demonstration of the SimpleCloud technology, Elecnor ran a pilot test. In just a few minutes, it deployed desktops connected to the powerful virtual machines in the built-for-security IBM Cloud environment. The desktop solution offered the company the graphics processing power it needed, and users could access it from any location and from any device.

"Our users can connect to very powerful virtual desktops from wherever they are and with any device, allowing us to use both corporate tools and some more specific software tools to do certain tasks in the world of construction."

—Jon Blázquez, Director of Informatics and Technology, Elecnor S.A.

"The pilot test amply met our expectations," says Jon Blázquez, Director of Informatics and Technology at Elecnor. "The graphics specifications went beyond our needs, and the desktops were accessible from any device. And it was much faster to deploy than other solutions that would often take days or weeks to implement and were much less flexible."

The timing of the pilot coincided with the first rumors of the COVID-19 pandemic. The SimpleCloud solution allowed Elecnor to quickly move to remote working throughout the company in response to global lockdowns. Thanks to the solution's flexibility, Elecnor can ramp its usage up or down as needed, putting new desktops online or removing them in just a few minutes. According to Blázquez, "SimpleCloud gives us a great advantage: adaptability and

efficiency, using the right resources at the right moment and for as long as we need."

Deploying a global, remote workforce

Elecnor chose the SimpleCloud solution to ramp up a global, remote workforce on demand without investing in new IT infrastructure. The ubiquity of the SimpleCloud solution lets users access and use dedicated virtual machines from any location on any device. They provide a full image of even the most complex project data that users previously needed to access from a stationary PC in a construction office. The Aspera software can move data of any size across any distance thanks to the award-winning IBM Fast Adaptive and Secure Protocol (FASP) data transfer protocol.

SimpleCloud can set up an entire work environment in less than an hour, and each workstation instance in about a minute. Furthermore, Elecnor can use the solution to give workers access to both generalized corporate tools and, as needed for certain projects, more task-specific tools. Users can switch between virtual machines in the time it takes to log out of one desktop and into another—usually less than a minute.

The virtual solution lets Elecnor scale its users and projects up or down as needed; there's no limit to the number of workstations that SimpleCloud can provision. Because

the solution becomes part of a company's operating expenses (OPEX), there is a potential cost savings of up to 60% compared to a capital expenditure (CAPEX) on permanent infrastructure, especially for longer-term projects requiring the SimpleCloud solutions.

The SimpleCloud platform is designed for ease-of-use and security because it is hosted in IBM data centers on IBM Cloud. "The platform is very intuitive with a simple interface that offers great advantages for both our employees and our IT team," says Blázquez. "Of vital importance is the ability to keep all the information from our projects controlled and centralized, streamlining business operations."

The timing of the SimpleCloud demonstration and pilot turned out to be fortuitous for Elecnor. According to Wolff, "Elecnor gave their people the ability to work remotely on our virtual machines from the very beginning of the COVID-19 lockdown without having to stop work on the projects they were doing at that time."

"SimpleCloud gives us a great advantage: adaptability and efficiency, using the right resources at the right moment and for as long as we need."

—Jon Blázquez, Director of Informatics and Technology, Elecnor S.A.

Solution components

- IBM® Aspera®
- IBM Cloud®

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About SimpleCloud
IBM Business Partner SimpleCloud is a global, cloud-based platform for collaborative digital content management and creation. SimpleCloud offers dedicated applications for customers in industries that demand high GPU processing. The company provides fully-integrated virtual desktop solutions in the cloud, allowing users to connect from anywhere, through any device. Its solutions are fully scalable; customers pay only for what they need, when they need it. Founded in 2008, SimpleCloud has its headquarters in Madrid, Spain and employs approximately 50 people in Madrid and Los Angeles.

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