



# ANAS Creates an Innovative and Flexible Virtual Desktop Environment

ANAS, part of the Ferrovie dello Stato Italiane (Italian State Railway) group, manages Italy's roads, highways and infrastructure. For almost a century it has been building roads to connect every town in the country, managing and maintaining them. The company is a leading player and internationally recognized in the world of road design, construction and maintenance.

## Industry

Public Sector

## Strategic priorities

- Anywhere Workspace

## VMware footprint

- VMware Horizon®

The COVID-19 pandemic has highlighted the important role of technology across companies, not least for ANAS, which decided to accelerate its adoption of VMware Horizon with the aim of implementing secure and efficient hybrid working for employees. As a result, the company has succeeded in responding to the emergency, ensuring the health and safety of its employees whilst also achieving improved manageability and greater flexibility.

## The role of IT in the company's vision

According to Mauro Giancaspro, ICT Director at ANAS, there is a perception that the public utilities sector is lagging when it comes to innovation and is not conducive for remote work. With this in mind, the IT department set a goal of accelerating the development of innovative digital services and technological solutions, in line with the Ferrovie dello Stato Italiane (Italian State Railway) strategy. The department acts as a digital business partner to other business areas within ANAS, including driving cultural change across the business, promoting an innovative mindset, fostering a change in the way teams share and collaborate, while facilitating the transition to the "new normal" with the introduction of digital tools and agile working models.

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Flavio Ercolani, Head of Technology, IT Department, ANAS

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## Pandemic-inspired momentum

ANAS manages over 32,000 kilometers of roads and highways, and employs approximately 6,800 people, almost all of whom use traditional IT tools (PCs or tablets). Some staff are based at the company's headquarters, while others work remotely. The company has a primary data center and a second disaster recovery site, which are both located in Rome. IT has been using a multi-cloud and virtualized infrastructure for many years, but progress with desktop virtualization had been slow until the COVID-19 pandemic accelerated the need for digital transformation.

"During the first lockdown in March 2020," explains Flavio Ercolani, Head of Technology in the IT department at ANAS, "we found ourselves in a position where we had to facilitate remote working for as many employees as possible. Some of us immediately started setting up VPN networks while others recovered the unused servers in the disaster recovery data center. We were all working to provide users and the company with an acceptable level of security within a short space of time, thus ensuring the uninterrupted operation of our roads and highways.

"As we weren't able to equip all staff with the necessary tools to carry out all their responsibilities in such a short space of time," says Ercolani, "We decided to implement virtual desktops with VMware Horizon, which allowed us to respond to the emergency."

## Virtual desktops become the top choice

Following the success of the initial deployment and aligned with the group's longer-term strategies, the IT department decided to use virtual desktops. Using VMware Horizon, the department has planned out the optimal IT environment that will support the company's operations in the future.

"Our investment allowed us to distribute devices already set up for the VDI environment to everyone in the company who needed them. Virtual desktops became the favored option for employees because it allows increased flexibility," says Ercolani.

The workstation virtualization solution was implemented in late 2020 and has undergone continuous optimization throughout 2021. This was made possible by the collaboration between the units responsible for technology and operations-related facilities and technical systems within the IT department. The full deployment was completed in late 2021.

"There were two specific issues within our operating environment that made the project particularly challenging," explains Ercolani. There were many PCs that needed to be connected concurrently. The other issue was many of engineers and designers at ANAS required graphics workstations, some of which performed tasks that were particularly demanding on the company's hardware resources.

Virtualization, implemented on both client and server side, was the key to success for efficient resource management, allowing ANAS the flexibility to provide the computing power required to manage peaks in demand and the graphics requirements of engineers and designers.

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## Advantages for the IT department and end users

With the adoption of virtual desktops, ANAS has most importantly obtained a higher level of security; data does not remain on users' PCs which, in the event of theft, carelessness or attack, could represent a weak point in the organization's defenses.

Additionally, the IT department managed to simplify its infrastructure, particularly for activities such as the distribution of patches and versions. A virtualization-based approach made it possible to drastically reduce waiting times and deadlines for supplying apps and workflows to employees, and to facilitate an improvement in the efficiency of dedicated resources.

An important byproduct of virtualization is the ability to deploy apps in a more agile and flexible manner. There has been a reduction in operating costs and increased efficiency due to less IT staff needed to manage processes. The expected saving is approximately 170 percent, while ANAS will see a return on investment in just 1.5 years.

There are also numerous improvements to the user experience. With virtual desktops, connectivity problems have less of an impact with a distributed workforce, and there is no need to download files and save them locally to work; the information travels by means of secure, encrypted channels and the performance is excellent.

Giancaspro says, "As ANAS performs a central role in the industry, the use of virtual desktops also guarantees the continuity and security of the administrative and operational workings of the leading contracting authority in Italy during the pandemic."

## The future: data-driven and cloud-based

"In order to compete in an era characterized by rapid and ongoing change, a company needs to be agile, fast and streamlined," says Giancaspro. "We want to accelerate technological innovation, improve the performance and security of our IT infrastructure and encourage a data-driven approach to support our decision-making processes." ANAS is embarking on a process of consolidating and developing the information systems, moving towards a hybrid multi-cloud infrastructure with VMware Workspace ONE®.

"Our goal is to innovate and digitize processes across different departments for greater security, enhanced service levels and improved data governance and application development processes via the adoption of DevOps methodology. We also want to increase flexibility and scalability across IT, with greater service operability and standardization," Giancaspro says.

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