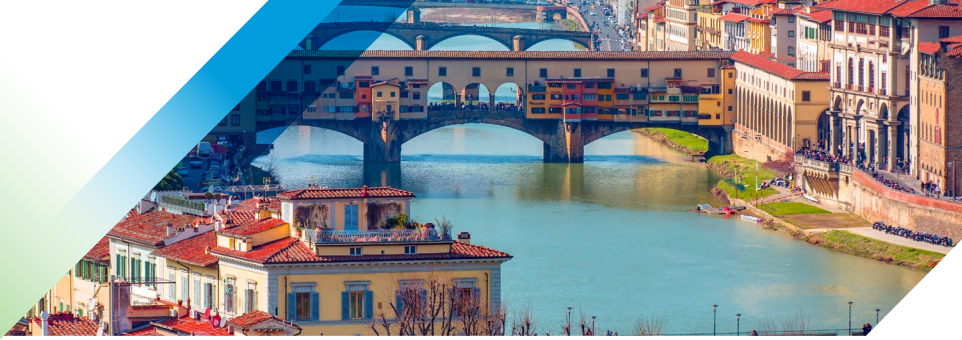
Customer
Case Study



Publiacqua

A Secure Flow of IT Services in the Cloud

Publiacqua has created a disaster recovery service using VMware Cloud on AWS, building a platform not previously available through traditional technologies while also building security, reliability and system integration.

Publiacqua leads the collection, treatment, conveyance and distribution of drinking water for the provinces of Florence, Prato, Pistoia and Arezzo.

Industry

Energy-Utilities

Strategic priorities

- Multi-Cloud

Partner

TAI has been connecting digital information and users in Italy since 1987.

VMware footprint

- VMware® Cloud™ on AWS
- VMware vSphere®
- VMware Cloud Disaster Recovery™

Managing a public asset

Italian municipal utility operator Publiacqua manages integrated water services for the provinces of Florence, Prato, Pistoia and Arezzo. The company handles the collection, treatment, conveyance and distribution of drinking water, using both groundwater and surface water, and the collection and purification of wastewater. To do so, it operates a complex and articulated plant system, including large-scale facilities in the Tuscan capital, Florence, and water treatment plants in Anconella and Mantignano.

"In recent years, our management team has focused on technological innovation, for the benefit of both our staff and users throughout our 46 municipalities," says Paolo Vinci, CIO, Publiacqua. A key focus area for IT staff at Publiacqua is improving the resilience of infrastructure through its disaster recovery service—a critical facility that was difficult to optimize with a traditional on-premises data center.

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>
> Mauro Cacciafani, Architecture, Risk and Security Manager, Publiacqua

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Building recovery directly in the cloud

The organization's in-house IT architecture design and management team suggested a new cloud-based disaster recovery solution: VMware Cloud Disaster Recovery. Mauro Cacciafani, architecture, risk and security manager at Publiacqua, led a project to assess the solution's feasibility and ensure that it was sustainable both from a technical and economic perspective. Publiacqua already used AWS cloud, alongside other providers, but needed stronger levels of IT governance to ensure operational continuity.

Publiacqua turned to VMware partner, TAI, a digital solutions specialist with almost 35 years of experience. Its consultants proposed a disaster recovery service with VMware Cloud on AWS. "AWS is a public cloud partner for all VMware vSphere-based workloads," explain Alberto Menichetti and Alessio Penni, project managers at TAI. "For Publiacqua, we proposed an extension of the on-premises vSphere environment on VMware Cloud on AWS, which would take advantage of all the benefits of the hybrid cloud and a software-defined data center."

"Virtualization is a path we have followed with VMware for many years," says Cacciafani. "The ability to reuse tools and expertise by introducing a more comprehensive IT service led to our choice of VMware Cloud on AWS. It also gave us an opportunity to update and improve our skills, which was a great prospect for us."

A secure transition

Having completed a feasibility study at the beginning of 2020, the project began a few weeks later, and the main infrastructure was completed by June. "Tackling the project using traditional solutions would have led to unsustainable costs and an unsuitable outcome," explains Vinci. "In addition, most activities were completed remotely during the first lockdown in 2020. This represented a key benefit for the cloud approach to systems management."

"Some services needed to be updated, but we would have needed to manage this whatever solution we chose," says Cacciafani. "However, the possibility of integrating VMware Cloud on AWS allowed us to tackle the project with tools and technologies we already knew."

The use of integrated management systems in VMware Cloud on AWS helped build the skills of in-house IT architects at Publiacqua, freeing them up from operational management to focus on cloud-specific areas such as capacity management, application integration and data exchange methods.

The project saw strong development of the internal working group at Publiacqua, consisting of architectural and infrastructure managers and specialists at TAI. VMware itself also played a critical role, with its project management and quality assurance specialists bringing experience and product knowledge for the platform's automation tools.

"VMware Professional Services helped us and TAI carry out infrastructure configurations and connectivity and system setups," explains Cacciafani. "We also involved application solutions representatives to coordinate migration, testing and verification, right up to the final stages when we validated the new environment directly with users."

Publiacqua manages large volumes of sensitive personal data, so control over its transfer to an external platform was an important factor. Ensuring GDPR compliance throughout the process was also a constant concern. The secure transition of data held by Publiacqua to VMware Cloud on AWS took place within the European Economic Area, primarily through a data center in Frankfurt.

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Opening up to new hybrid developments

Using VMware Cloud on AWS, the IT architecture at Publiacqua is now more responsive, scalable and resilient. Staff can now work on management systems that should a malfunction occur, they can rely on disaster recovery. Business continuity models have also been strengthened, with further tests planned for all users in the supply chain to strengthen responses to adverse events.

The new environment opens up new avenues for Publiacqua. The first involves bringing all services enabled by the corporate IT infrastructure into operation, expanding the services provided in disaster recovery mode. Publiacqua also plans to launch other disaster recovery services to internal users, starting with virtual desktops, which have been in place using VMware technology for several years. It will also aim to ensure that data security is maintained even when the infrastructure is extended using disaster recovery.

Publiacqua is also seeing other benefits with VMware Cloud on AWS. "Disaster recovery is an important use case for VMware Cloud on AWS, but it is not the only one," explains Vinci. "It is a platform on which we can develop hybrid cloud solutions, enabling Publiacqua to natively develop new applications in the cloud, already integrated with Amazon services. This will build our ability to respond to new needs and deliver new services in terms of compliance, sustainability and the green economy."