



Veneto Region: Transforming municipal services for 5 million Italian citizens

Veneto Region implemented Google Suite and GCP to create an integrated, modern infrastructure, migrating 85,000 municipal workers, doctors, and hospital employees to Google Suite, reducing operational costs by 90%.

**Google
Cloud**



REGIONE DEL VENETO

About Veneto Region

Famous for the historic cities of Venice and Verona, Veneto is Italy's fifth-largest region, with a population of five million.

Industries: Government & Public Sector

Location: Italy

Powered by Google Cloud Platform



Results

- Migrates 85,000 employees to G Suite, improving collaboration and reducing the need for travel by 60%
- Reduces health authority operational costs by 90% compared to previous on-premises solutions
- Creates an integrated digital ecosystem across municipal divisions, using machine learning for innovative

Digital benefits citizen employ

About Miriade and Noovle

Miriade

Google Cloud Premier Partner Miriade is an Italian IT consulting company leading people through successful digital transformation projects.

Noovle

Google Cloud Premier Partner Noovle is a strategic ICT and Cloud consultancy with offices in Italy, France, Switzerland, and Slovakia.

Google Cloud Platform (<https://cloud.google.com/>)

AI Platform (<https://cloud.google.com/ai-platform/>)

Cloud Natural Language API (<https://cloud.google.com/natural-language/>)

Cloud Storage (<https://cloud.google.com/storage/>)

Apigee API Platform (<https://cloud.google.com/apigee/>)

TensorFlow (<https://www.tensorflow.org/>) is a strategic ICT and Cloud consultancy with G Suite (<https://gsuite.google.com/>) and, and

Docs (<https://gsuite.google.com/products/docs/>)

Sheets (<https://gsuite.google.com/products/sheets/>)

administrative tools

Google Drive

(<https://gsuite.google.com/products/drive/>)

Google Meet

(<https://gsuite.google.com/products/meet/>)

Famous for its wine, food, and the historic cities of Venice, Verona, and Padua, the Veneto region (<http://www.regione.veneto.it/>) is the fifth-largest in Italy, with five million inhabitants. It covers a large and diverse territory from the Dolomite Mountains to the Adriatic Sea. While it is best known for its historic status, the region is pursuing a forward-thinking digital strategy to support its citizens across municipal services.

"In line with the Italian Digital Agenda, the region is currently investing in consolidating our data centers to unlock the potential of the cloud, and developing platforms to enable the local public administration to provide services to our citizens," explains Idelfo Borgo, CIO for the Veneto Region. "Our citizens increasingly expect a digital, connected service that is available around the clock, and we need to build the right tools to provide that."

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—Idelfo Borgo, CIO, Veneto Region.

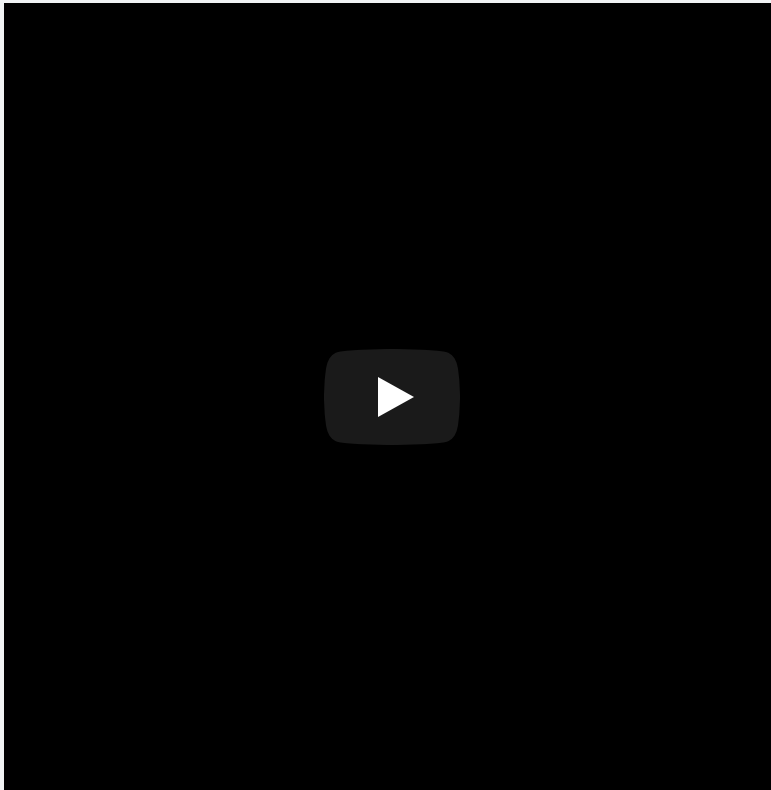
As part of this strategy, the region decided to update the ICT infrastructure of its healthcare system, which employs 70,000 operators. "These days, email is a mission-critical tool, and with our previous system, we were not able to safeguard the functioning of our system, especially as each of the 13 health departments had their own data center and email provider," explains Lorenzo Gubian, CIO for Azienda Zero, the organization responsible for healthcare systems across the region. The organization set up a public call for tenders to find a solution, and chose G

Suite (<https://gsuite.google.com/>) as the best fit for its needs.

"The goal is to update the entire system of digital services for the Veneto region, to encourage convergence," says Idelfo. "Solving infrastructural issues is fundamental, but we also want to integrate big data, AI, and IoT tools."

Enhancing collaboration and reducing travel

Managing the IT provision of a large and complex healthcare system spanning 13 separate local health authorities is a challenging task. "Before, each of the healthcare divisions had its own on-premises data center and email provider, which came with a significant operational burden," explains Lorenzo. "We wanted to eliminate low-level operational and maintenance tasks, and upgrade the quality of the tools we provided to our employees. The key was enabling greater collaboration both between local health authorities, and with other local governmental organizations."



To do that, with the help of implementation partner [Miriade](https://www.miriade.it/) (<https://www.miriade.it/>), Azienda Zero migrated its 70,000 healthcare professionals across over 50 hospitals to G Suite, as well as an additional 15,000 employees working in other regional public sector divisions (agriculture, tourism, administration, and others).

"During the tender process, we tested the solutions on offer and found G Suite offered the collaboration tools we were looking for," says Lorenzo. "Two of the health authorities were already using G Suite, so we migrated

the other eleven. The process was very straightforward as many of the employees were already familiar with G Suite from using Gmail for their own personal accounts. They could see straight away that these tools were an improvement on what they had previously."

Thanks to the collaborative nature of [Docs](https://gsuite.google.com/products/docs/) (<https://gsuite.google.com/products/docs/>), [Sheets](https://gsuite.google.com/products/sheets/) (<https://gsuite.google.com/products/sheets/>), [Drive](https://gsuite.google.com/products/drive/) (<https://gsuite.google.com/products/drive/>) and [Hangouts](https://gsuite.google.com/products/meet/) (<https://gsuite.google.com/products/meet/>), it is no longer necessary for employees to travel in order to work together. "We recently merged several health authorities, so each one now covers a larger geographical region." says Lorenzo. "Thanks to the G Suite productivity suite and Hangouts video, employees can collaborate online so there is less need to travel within a particular health authority."

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Collaboration between authorities has also been improved, further reducing the need to travel. "For example, you no longer need to make the journey between Venice and Padua if you want to work together on process guidelines," says Lorenzo. "We also have a big collaborative project for improving the quality of care with Padua University, and because they use G Suite for Education, it is much easier to work together. We can easily share documents or monitor progress, saving a lot of time."

Altogether, travel across all the local healthcare authorities has been reduced by 60 percent. "Now, we only travel when we really have to," says Lorenzo.

"With G Suite, it's also easier to manage the operational side of the system," Lorenzo adds. "For

example, if we run out of storage, we can access more without buying hardware, meaning our system is more reliable."

Transforming healthcare with machine learning

As well as implementing G Suite, Azienda Zero is developing a range of other innovative administrative solutions using Google Cloud products. Working with Google Cloud Premier Partner [Noovle](https://www.noovle.com/mt/) (<https://www.noovle.com/mt/>), the organization is developing a machine learning tool to revolutionize the administration of the diagnosis process for its general practitioners by using [Cloud Machine Learning Engine](https://cloud.google.com/ml-engine/) (<https://cloud.google.com/ml-engine/>), [Cloud Natural Language](https://cloud.google.com/natural-language/) (<https://cloud.google.com/natural-language/>), and [Cloud Storage](https://cloud.google.com/storage/) (<https://cloud.google.com/storage/>) on [Google Cloud Platform](https://cloud.google.com/) (<https://cloud.google.com/>) with [TensorFlow](https://www.tensorflow.org/) (<https://www.tensorflow.org/>).

"The idea is to create a tool that analyzes discharge letters written by GPs in real time using Cloud Natural Language, and create a machine learning model using TensorFlow that suggests the correct diagnosis based on the text of the letter," says Lorenzo.

The diagnosis will be based on ICD-9-CM, the International Classification of Diseases, Ninth Revision, Clinical Modification, which includes 13,800 different diagnosis codes. In order to train the model, around 300,000 anonymized discharge letters from the

regional registry will be analyzed and classified, then verified by a trained clinician.

"The end goal for this tool is to support the clinician in the diagnosis process, eliminating cases of the wrong diagnosis being added after the letter of discharge has been written, and providing more reliable care to our patients," explains Lorenzo. "That increases the precision of the information passed to the next doctor who sees the patient. It's a very innovative project, and the first of its kind in Italy."

Azienda Zero is also currently using [Apigee API Management Platform](https://cloud.google.com/apigee/) to automatically collect GP appointment data for the 4,000 GPs that work across the region. "Using Apigee, anonymized patient data relating to an appointment entered by GPs using their own software is automatically sent to our system, without them needing to do anything," says Lorenzo. "That means we can easily keep track of exactly what services were offered, so the GP is correctly remunerated, and check that patients are receiving the correct treatment. It also enables us to track vaccination rates, for example, so we know we have precise information on immunization cover within the region. It's useful for a very broad range of applications."

"Using both G Suite and Google Cloud Platform helps us to simplify administrative and operational tasks, allowing our staff to focus on our core mission: providing excellent care."

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Zero, Veneto Region

Offering citizens an integrated, digital service

By providing its employees with the right collaborative tools thanks to G Suite, the Veneto Region is helping them to focus on the service they provide to patients and end-users. "Using both G Suite and Google Cloud

Platform helps us to simplify administrative and operational tasks, allowing our staff to focus on our core mission: providing excellent care," says Lorenzo."

From a financial perspective, Azienda Zero now has a clearer oversight over its infrastructure spending.

"Reducing costs was not the priority, the focus was improving the quality of the service and to offer more functionality for the same money," says Lorenzo. "But compared to when a health authority maintained its own data center, operational costs have been reduced by on average 90 percent. Before, there were many hidden operational costs, whereas with the cloud, it's easier to keep track of exactly how much is being spent."

G Suite has also enabled smart working initiatives across the other public service departments that have migrated, and more departments are keen to be part of the project. "There's a lot of interest from other departments," says Lorenzo. "As for Azienda Zero, we want to continue replacing hardware with SaaS solutions and moving into the cloud."

Now, the Veneto Region as a whole is expanding its use of Google Cloud tools to enhance the services it provides. "From 2019, we are launching a new cross-border, cross-environmental platform using Compute Engine, Cloud Natural Language and Apigee that will empower citizens with easier, more efficient access to various municipal services," says Idelfo. "Veneto citizens who have an [SPID](https://www.spid.gov.it/) (<https://www.spid.gov.it/>)

digital identity will be able to use an app on their smartphone or a chatbot on social media to change doctors, for example, or change their home address."

"Before, they would have had to visit different digital platforms or physical offices to carry out those tasks. By encouraging the transversal sharing of information between departments, we are creating an integrated, fully digitized system that is better suited to the needs of our users."

"The vision for the Veneto Region as a whole is to create an open, integrated digital ecosystem that makes use of new technologies to provide services that are more targeted, and form a database to inform policy choices that will, in compliance with GDPR, be made public," says Idelfo. "This will also increase the synergy between public and private sectors, and ultimately increase the number and quality of services we provide for our citizens."

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<https://cloud.google.com/customers/veneto-region/>

