DATA CENTERS
A flagship activity of the canton of Vaud
SAFE PLACES TO HOST DATA

With its reputation for discretion inherited from its Swiss banking legacy, the canton of Vaud is investing to establish itself as a key player in data hosting.

An increasing number of information leaks, exponential growth of data volumes, an explosion in the number of cyberattacks... At the crossroads of the critically important issues of confidentiality and protection of information, Switzerland is capitalizing on its strengths and has been positioned as a key player in the data economy for several years. The country already has nearly 80 server centers, some of which are located in former army bunkers. Two of the world’s biggest companies in this respect – Equinix and Interxion – have invested in Switzerland.

The canton of Vaud has data storage sites in Crissier, Gland, Avenches, Renens and Lausanne. In addition to the data centers, the Vaud ecosystem is being bolstered by the acceptance of more and more companies capable of responding to all IT expertise needs, as well as digital data management requirements.

At the same time, research is a key area of the data economy: in February 2017, the Swiss Federal Institutes of Technology in Lausanne and Zurich launched the Swiss Data Science Center – a national center for data science to promote innovation in the field. In December 2017, the EPFL also opened its Center for Digital Trust, which is set to become a reference point for information security, data protection and privacy in the digital world.

Switzerland, a digital safe

The same expertise – from banking institutions to databases. As a neutral country, Switzerland represents an ideal environment for personal data.

The canton of Vaud, which since May 2017 has been home to the largest data center in Switzerland in Gland “managed by Safe Host”, is at the forefront of this sector with many advantages to show.

WHY OUTSOURCE DATA STORAGE?

Protection systems, updates, security... For organizations, keeping data in their own office is particularly costly, so much so that these costs can constitute up to 25% of a company’s IT budget. By using a data center, companies and organizations significantly reduce the risk of their data being damaged, lost, or corrupted by a natural event, damage or cyberattack. The delocalized data is stored in spaces designed to ensure its security regardless of the given risk, and can be instantly viewed thanks to the very high download speeds.

AN IDEAL ENVIRONMENT FOR INVESTING

Located in the heart of Europe, Switzerland never ceases to amaze with its diversity and prosperity. Its political system is based on direct democracy and consensus, giving rise to productive stability that greatly benefits the economy. The country regularly ranks among the most competitive in the world.

Vaud, the largest of the French-speaking cantons, is also the most populated, with more than 800,000 inhabitants. An illustration of its openness is that nearly a third of its population hails from abroad. A significant proportion of these people are highly qualified and were attracted by the working conditions and excellence of the region’s institutions.

There are some 50,000 companies in the canton, mainly operating in the service sector, but they also lead the way in technology sectors with high added value such as precision instruments, medical equipment and information technology.
One of the most protective legal frameworks in the world
Swiss legislation ensures very strict protection of data, whether it belongs to individuals or to legal entities (companies, institutions, associations, etc.). Thus, while the Swiss data protection law is very similar to that of other European countries, access rights for intelligence services are severely restricted in Switzerland.

Although the Federal Law on Intelligence (LRens), which entered into force on 1 September 2017, contains new possibilities for retrieving information, the latter remains subject to political and, above all, judicial authorization. All the new possibilities for information retrieval provided for in the LRens relate exclusively to risks linked to internal or external security. All must be approved by three bodies: the Federal Administrative Court, the Security Committee of the Federal Council and the Head of the Federal Department of Defence.

Invasions of privacy, ordered only in the event of a specific threat, are subject to the greatest restriction and are exclusively aimed at ensuring the security of Switzerland and its inhabitants. Likewise in the execution phase, the measures are monitored by the Control Delegation and an independent supervisory authority. It is also forbidden to communicate the data abroad without the consent of the owner.

Finally, unlike other countries, Switzerland has not banned encryption and hosted data has the right to be encrypted to the highest degree.

**ECOLOGY, A MAJOR ISSUE IN DATA STORAGE**
Electricity, required to run and above all cool the servers, is the data center’s largest item of expenditure, amounting to between 30% and 50% depending on circumstances.

In order to reduce their operating costs and contribute to a reduction in greenhouse gas emissions, those in the profession are coming up with ingenious solutions for designing buildings that are as virtuous as possible: miniaturization of servers, cooling through the recovery of river water or rainwater, air coolers, recovery of waste heat to supply neighboring buildings...

180,000 m² represents the total area dedicated to data hosting in the 80 data centers in Switzerland, including seven in the canton of Vaud.

“100% of the electricity that feeds our data center in Gland is hydraulic. Our customers, and not just the environmentalists, are urging us to use green energy.”

GÉRARD SIKIAS
CEO of Safe Host

Source: S-GE
A CENTER OF EXCELLENCE FOR DATA

In addition to the presence of data-hosting professionals, the canton of Vaud benefits from an innovative academic pool and has all the necessary skills to supply the sector with IT engineers while continuing to develop its technological solutions.

The research laboratories at Vaud’s world-renowned higher education institutions are constantly innovating and helping to anticipate threats to information infrastructures.

The launch of the Swiss Data Science Center by the EPFL and EPFZ in September 2017 supports this positioning. The Center aims to promote innovation in data sciences, and is a further asset that makes the Vaud ecosystem an ideal environment for the digital economy.

Furthermore, in conjunction with the EPFZ, the EPFL launched a Master’s in Data Science in September 2017 to enable students to be trained and enhance their knowledge of database architecture, implementation, data mining, algorithms etc.

The EPFL also has a research center called EcoCloud, which handles the following issues: optimization of data storage, data search processes, etc. The center has its own technology transfer system called the EcoCloud Industry Affiliate Program (IAP), which establishes links between visionary companies and the academic institute.

Lastly, at the School of Engineering and Management of the canton of Vaud (HEIG-VD), the Media Engineering Institute (MEI) focuses on the web-based world, from social networks and geolocalization systems to connected objects and mobile applications. The MEI has a team of some 20 people and structures its activities around three areas of research and skill profiles: content management, play and simulation for training purposes – including serious games – and finally the area of digital media.

A CUTTING-EDGE FIELD OF THE CANTON OF VAUD: CYBERSECURITY

The high concentration in and around Lausanne of SMEs and companies experienced in information security such as SCRT and Kudelski Security, high-level research centers and various incubators encourages fundamental and applied research to flourish in all sectors concerned by cybersecurity.

This positive setting, backed by cantonal and federal grants, illustrates the burgeoning entrepreneurial scene in the region of Lausanne: in Switzerland, the canton of Vaud is number one in terms of investment in ICT startups, often emerging from universities and higher education institutions.

“Only in cases of strong suspicion can the authorities request access to data stored on our servers.”

RENÉ FELL
Managing Director of Abissa Infomatique
MAIN STAKEHOLDERS IN THE VAUD DATA CENTER

Alpine DC
Data center based in downtown Lausanne. It offers a range of solutions accessible to everyone, such as the hosting of one or more machines, server rental, managed services and online backup.
alpinedc.ch

BrainServe
Based in Crissier, the BrainServe Datacenter delivers hosting services primarily to banks, international companies and IT service providers.
brainserve.ch

Edificom
Also located in Crissier, Edificom houses the data of around 60 customers, mainly in the areas of training, hospitality and health.
edificom.ch

SyselCloud
SyselCloud, a company active in cloud computing based in the north of Lausanne, primarily reaches out to SMEs by offering them cutting-edge technological solutions for the storage and retention of their data.
sysecloud.ch

SAFE HOST
Safe Host is an SME in charge of three data centers, including the largest in Switzerland which opened in Gland in summer 2017. The other two sites are located in Avenches and Geneva. The latter opened back in 2002. The sites rigorously maintain the high international security standards. In environmental terms, Safe Host wants to set an example and be mindful of impact in every way: at its Avenches site, the SME boasts an extremely innovative air conditioning system.

Safe Host was founded in the canton of Geneva in 2000, and it was only 15 years later that it moved to Vaud. The choice was not the result of chance but rather strategy: it was necessary to have a site far from the one in Geneva in case a critical situation should arise, and the ability to offer Vaud companies a facility close to home became a necessity. “Certain customers value the physical proximity to their servers so that they can quickly intervene in their facility as needed,” explains Elena Sikias, marketing project coordinator at the company. A further benefit: access to the rest of Switzerland and to a new market. “Our site in Avenches, near Berne, Fribourg and Neuchâtel, provides us with access to businesses in these cities. In addition, Vaud has a large number of local and multinational companies.”
safehost.com

44 zettabytes
represents the global volume of digital data by the year 2020 (44,000 billion gigabytes).

Source: Accenture
NETWORK OF SUPPORTING PARTNERS

In the canton of Vaud – and more broadly in Switzerland – several bodies exist to provide assistance and support to innovative companies via financing, coaching and networking solutions.

VIGISWISS

In order to communicate the benefits of data storage in Switzerland, the key market players came together in February 2016 to form the Vigiswiss association, a network of professionals whose infrastructures are capable of responding to the main risks linked to the storage and protection of data. Should a problem arise with any one of them, companies with Vigiswiss certification undertake to provide a solution by leveraging one another’s services, an essential guarantee for customers who cannot afford to no longer have access to their data, even temporarily: airports, emergency services...

Governments, companies, international organizations – the association, designed as a tool for international prospecting, brings together companies that have all signed a quality charter. This label seeks to ensure the highest possible level of security for customers and guarantees outstanding services provided by members of the association and their certified partners: data center, hosts, integrators and associated service providers.

This initiative is supported by a whole ecosystem of professionals from the digital economy, operating under the umbrella of data protection, cybersecurity and Big Data, illustrating how mature and structured this sector is. The Vigiswiss strategic committee and its various expert committees bring together the most advanced technical, legal, academic, economic and political specialists from their respective fields to ensure that all contribute to Switzerland’s fundamental role: namely, to be the global data safe and preserve universal digital memory.

vigiswiss.ch

CLUSTER digitalswitzerland

digitalswitzerland is a Swiss association bringing together public and private players to promote and publicize Switzerland in the field of digitization. Launched in 2015 in Zurich, digitalswitzerland now brings together 85 members, academic institutions, cantons, companies as well as the World Economic Forum or economiesuisse.
digitalswitzerland.com

Economic Development – Canton of Vaud (DEV)
The DEV is the main contact for foreign companies looking to set up in the region. To fulfill its role, the DEV works with both private (banks, notaries, lawyers, etc.) and public partners (various government departments). It provides advice on administrative procedures and allows newly established companies to benefit from its vast network.
dev.ch

EPFL Innovation Park
Located next to EPFL, the technological park of the same name hosts more than 160 companies, housed in 14 buildings, covering an area of 55,000 m². Over 2,000 researchers, engineers, scientists and administrative staff work there.
epfl-innovation park.ch

Innovaud
As a gateway to innovation in the canton of Vaud, Innovaud supports and provides networking opportunities for startups and SMEs, particularly those in life sciences, to develop solutions with them in the area of hosting, promotion, funding and/or coaching. Innovaud is firmly established in a vast network of partners, enabling it to redirect requests to the organizations most suited to the needs of each party.
innovaud.ch

Office for Economic Affairs and Innovation (SPEI)
The SPEI supports companies established in the canton of Vaud, and more specifically those active in the sectors of industry and advanced technologies. SPEI advises and informs entrepreneurs, particularly by putting them in touch with the appropriate organizations according to their specific needs. SPEI can also provide direct financial support.
invest-vaud.swiss
CLUSTER ALP ICT
Founded in 2008, the Alp ICT cluster features startups, SMEs and research institutes in French-speaking Switzerland which are active in the digital and innovation field. It was established by the cantons of Western Switzerland (Fribourg, Vaud, Neuchâtel, Geneva, Valais, Jura and Bern) in partnership with the State Secretariat for Economic Affairs (SECO). Its network grows by 12% per year and now totals more than 950 companies. In order to provide networking opportunities companies working in the IT field, it organizes some 50 events each year, where potential partners and investors are invited to enable certain projects to see the light of day.

Alp ICT’s mission is also to promote Switzerland’s specialist skills in this sector abroad, namely: security, cloud computing, man-machine interaction, social networks and entertainment, mobile and telecommunications, computer systems and networks, and green IT. The cluster has strong links with the main research institutes in Western Switzerland that are active in the sector, as well as technology parks and incubators that host companies in the IT sector.
alpict.com

Y-PARC
This technology park was created in 1991 in Yverdon-les-Bains and is the first of its kind in Switzerland. It is also one of the largest, covering an area of 50 hectares. It is a competence center which is home to more than 150 companies and start-ups. Y-PARC provides a complete and varied infrastructure – with land for sale, premises to rent and a business incubator – and support services tailored to all. For life sciences, this includes the imminent arrival of an Incyte production plant and several medical technology companies (Heraeus Medical Components, Dentsply-Maillefer and Symbios Orthopédie).
y-parc.ch

“Our members must agree to regular auditing by an independent organization to obtain the Vigiswiss quality certification. Furthermore, our charter is a commitment not to host illegal data.”

LAURENCE JOVIGNOT-HALIFI
Chair of the Vigiswiss Strategic Committee

AMONG THE TOP THREE IN THE WORLD
The Data Center Risk Index, a global ranking produced by the American firm Cushman & Wakefield, ranks Switzerland third among the most attractive countries for setting up a data center, far ahead of its neighbors Germany (16th), France (17th) and Italy (31st). From the selected criteria, Switzerland is deemed to be particularly efficient in terms of cost, energy security, political stability, the low risk of natural disasters and its economic environment, which is considered to be very advantageous to business.

Y-PARC
This technology park was created in 1991 in Yverdon-les-Bains and is the first of its kind in Switzerland. It is also one of the largest, covering an area of 50 hectares. It is a competence center which is home to more than 150 companies and start-ups. Y-PARC provides a complete and varied infrastructure – with land for sale, premises to rent and a business incubator – and support services tailored to all. For life sciences, this includes the imminent arrival of an Incyte production plant and several medical technology companies (Heraeus Medical Components, Dentsply-Maillefer and Symbios Orthopédie).
y-parc.ch

“Our members must agree to regular auditing by an independent organization to obtain the Vigiswiss quality certification. Furthermore, our charter is a commitment not to host illegal data.”

LAURENCE JOVIGNOT-HALIFI
Chair of the Vigiswiss Strategic Committee

AMONG THE TOP THREE IN THE WORLD
The Data Center Risk Index, a global ranking produced by the American firm Cushman & Wakefield, ranks Switzerland third among the most attractive countries for setting up a data center, far ahead of its neighbors Germany (16th), France (17th) and Italy (31st). From the selected criteria, Switzerland is deemed to be particularly efficient in terms of cost, energy security, political stability, the low risk of natural disasters and its economic environment, which is considered to be very advantageous to business.