L'INSTITUT MUTUALISTE MONTSOURIS

Healthcare Case Study

Montsouris Institute

Located in the 14th arrondissement of Paris, the Institut Mutualiste Montsouris (IMM) is a medical-surgical hospital that provides care for the majority of serious or complex pathologies with a focus on surgery (cardiac, vascular, thoracic, digestive, gynecology, urology, oncology, etc.), while having a level 1B maternity hospital with more than 2000 births, a psychiatric center and an internal medicine department.

"Our access to the Internet, like other highly sensitive resources at the facility, is considered critical. Our hospital, like other healthcare facilities, now uses many resources, both medical and non-medical, on the Internet. We also publish applications on the Internet, and their unavailability is not an option for either our patients or staff. An Internet access outage results in significant losses, and has a direct impact on our organization."

-- PATRICK BOLORE, CIO, IMM

The Challenge

Internet access is now paramount, both for the continuity of service of the IMM Information System, and for staff, patients and guests.

All systems and all populations need permanent and uninterrupted access to Internet resources, whether they are public, private or in the Cloud.

In a hospital facility like the IMM, Internet access is of great importance, including for medical resources (data exchange with different platforms, publication of results, streaming of surgeries, HR management, etc.). Directly from the exam room, it is now possible to access patients' files or test results, wherever they are.

This criticality exists on both outbound traffic (viewing web pages) and inbound traffic (publishing results servers, etc.).

Servers, databases, patient records, emails, ... an Internet access failure can lead to severe productivity losses. As a hospital, the IMM has chosen to consider this risk as high, and to add a solution ensuring very strong network resilience with multiple Internet providers.

intégrale IP

A Trusted Partner

IMM turned to Intégrale IP, a consulting, auditing and integration company specialized exclusively in network infrastructure and IT security. Given IMM's network infrastructure, Intégrale IP advised them to implement a solution that could be integrated **quickly, and without any modification of the existing infrastructure.**

With the ELFIQ solution installed since 2016, IMM has benefited from true high-level resilience of its Internet access from several different operators. This has enabled us to achieve complete independence from the operators. In the event of a failure or maintenance of one of them, we no longer have any interruption of service. Its integration was achieved very quickly. The user experience is much better, thanks to the quality of service rules implemented. We have in fact secured our business flows, and strengthened our agility, especially for remote working."

-- PATRICK BOLORE, CIO, IMM

The Solution

Intégrale IP recommended ELFIQ by Adaptiv Networks, a link-balancing solution that allows the simultaneous management and use of multiple Internet access providers for both outbound traffic (web surfing) and inbound traffic (application publishing). In case of failure of one of the access providers, the traffic is redirected to another provider, without disrupting the traffic. Even better, when all the operators' connections are available, sessions are distributed between each other to avoid network congestion, thus improving performance. Very simple or very advanced configurations can be implemented for certain sensitive or bandwidth-consuming flows.

The integration was done transparently for both internal and external end-users: the product is inserted "at layer 2" between the router of one operator and the front-end firewall; then the other operators are connected directly to the ELFIQ equipment. **No changes to the front-end firewall are required (interfaces, rules, NAT, routing, etc.).**

ELFIQ by Adaptiv Networks has provided unparalleled operational flexibility since being deployed in 2016. Regular maintenance of the various operators goes unnoticed (Internet provider connections can be activated or deactivated at any time with minimal disruption to active sessions). The technical teams responsible for maintaining the network infrastructure in operational condition are delighted.

The ELFIQ product selected by IMM can handle a total traffic of 3Gbps, and more than 1,000,000 concurrent sessions. In addition to its failover and balancing capabilities, ELFIQ also offers traffic optimization and management features, as well as increasing the available bandwidth for the hospital network.

In summary, the solution has enabled highly available flows from and to the Internet to be maintained, whether for web traffic, encrypted tunnels with partners, remote access to information system resources, or unified communication flows (voice or video).