Province de Liège

ACCEDIAN

Case Study

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About the Province of Liège

The Province of Liège offers numerous and diverse services to its citizens, including agriculture, tourism, education, training, health, culture and sports.

In this context, the Province has identified five priority areas:

- Educational and professional development
- Cultural and sports development
- Health prevention and social outreach
- Sustainable territorial development
- Support for municipalities and municipal associations

The Province of Liège's IT department's mission is to provide its support to all the services of the Province. Its area of operation covers more than 4000 users at about 80 sites with more than 400 buildings (administrative internal users, cyberclasses, provincial educational PCs, etc.).

The progressive deployment of a global Wi-Fi network (the Eduroam project in particular) will see the number of users connected to the network infrastructure increase tenfold!

Accedian conducted an interview with Jonathan Reginster, IT Manager for Province de Liege. Here are his responses.

1. What were the reasons for purchasing Accedian's Skylight?

Before implementing the Skylight™ solution, we were repeatedly faced with user complaints. Our teams often found it difficult to respond to the complaints due to a total lack of visibility of network activity at remote sites. They were not able to quickly resolve issues, lacking a tool enabling them to identify the source of performance degradations.

We had many questions that remained unanswered. Questions such as, "By which applications and which users is the network used? " or "Do slowness problems really originate from the WAN?" and "Should we therefore invest to increase capacity?"

So, we set a goal of deploying a network performance management solution and application that would meet the following objectives:

- Get a clear view of network resource usage (by which users, on what bandwidth, when, for which applications, etc.)
- Be able to identify degradations across all 80 sites and accelerate our capacity to solve any problem reported by users
- Use a unified tool for better collaboration between network teams and systems teams on one hand, and the Province of Liège's team and software publishers on the other hand

While we were faced with a performance problem at our Malvoz site, we commissioned the Liège-based company abNETWORK, a specialist and longtime Accedian partner, to perform a diagnostic procedure. One of our applications crashed in a totally random manner, making the analysis of this phenomenon very difficult.

We had already attempted to solve this problem by ourselves over several weeks, by analyzing the network with other monitoring tools available on the market, What's Up Gold, Nagios or Wireshark, but none of them provided an adequate answer.

While the diagnostic procedure was focused on our Malvoz site, Skylight quickly allowed us to identify a broader issue with the routing. A redistribution of BGP routes into EIGRP tables caused a definition of sub-optimal routes.

The analysis and conclusions provided by Skylight confirmed our choice of this tool.

2. Which solutions have you considered?

Prior to the audit conducted with Skylight, we had already used an external audit service performed using another tool. In comparison with this tool, Skylight's usability, scalability and value made the difference. Furthermore, abNETWORK's proximity, high level of expertise and responsiveness have been highly valuable elements.

3. How do you use Skylight?

Diagnostics: In the event of user complaints, Skylight allows us to quickly pinpoint the source of the problem (whether in the network, server, or application.) In this way, we make an informed decision on which of our internal teams to contact for a quick resolution of the problem. Saving time for our teams and users is very important to us.

Continuous monitoring of user performance: A daily report is created, which lets us view the constant evolutions of performance and user experience. If a degradation occurs, we can assess its severity, its duration and its impact on users (which applications and which transactions.)

Moving forward, our main goal will be to improve and optimize relevant monitoring based on the analyses that we carry out. The aim is to focus on specific matters based on events detected by Skylight.

One recent example is a bandwidth usage report which showed us that a specific machine had generated a volume of 900 MB of traffic over a period of two hours. Skylight sensors allowed us to see that a WSUS server (Microsoft Windows update) had been down for several days. Upon restarting, the server performed a redistribution of updates to the entire IT infrastructure, thus generating this high and unexpected traffic. This incident, detected by Skylight sensors, is now motivating us to monitor this WSUS more closely.

The same applies to backup routines, some of which, when the scheduled automatic procedure fails, relaunch at inappropriate times (800 Mbps of network bandwidth used during peak office hours).

Philippe Pieters, Network Manager for the Province de Liège, adds: "In addition to giving us full visibility on network access to our data center and allowing us to solve performance issues more quickly, Skylight allowed us to uncover other types of problems, such as a large number of DNS queries that were unsuccessful because the corresponding servers were no longer in operation, or configurations which had the side effect of causing a traffic "ping pong" towards one of our cloud providers.

These analyses carried out by Skylight allowed us to correct and optimize a number of configurations.

It is also worth noting that we provide services to a wide variety of users. We must provide a quality service that meets their needs, while ensuring an optimal level of safety and services. Skylight helps us meet these goals by providing us at all times with a clear view of our various applications' behavior. Suspicious behavior with a potentially significant impact on the safety and quality of services is automatically detected and its analysis allows us to pinpoint its source and address it quickly."

4. Jonathan, after having used the solution for several months, what is your assessment?

After using Skylight for a year and a half, the results are very positive. Several weaknesses in the design of our computer network were corrected thanks to the solution. For occasional performance issues, degradations experienced by users are objectified and a more accurate analysis allows us to quickly find their source in order to address them. In the future, Accedian's Skylight will allow us to be even more proactive and better target our improvements and optimization points.

The deployment of larger scale Wi-Fi service and the implementation of BYOD ("Bring Your Own Device") will cause the number of network connections to skyrocket. At the moment, we already have an average of 800 simultaneous Wi-Fi connections.

In this context, we already know that Skylight will be an essential tool in order to continue guaranteeing a good level of service to all our users.

Also, the evolution of our virtualized environment will soon lead us to consider extending the deployment of Skylight.

Since Skylight integrates natively and transparently, this extension would allow us to go even further in our application tests.

"Without Accedian's Skylight, it would be absolutely impossible to adequately control the network infrastructure's usage for all users, and to respond quickly to all performance degradations."

Philippe Pieters, Network Manager, Province of Liège

About Accedian

Accedian is the leader in performance analytics and end user experience solutions, dedicated to providing our customers with the ability to assure their digital infrastructure, while helping them to unlock the full productivity of their users.

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