GRAND HÔPITAL de CHARLEROI

Case Study

GHdC enhances security, performance and standards while integrating multiple clinical information systems and deploying core medical applications with NEXThink

GHdC (Grand Hôpital de Charleroi) recently became one of the largest hospital in the French speaking part of Belgium (1124 beds) after the merging of two hospitals distributed in five different locations. Each of the two merged hospitals had their own IT infrastructure, their specific medical applications and different security and virus protection systems.

The challenges

It is a major challenge to unify and standardize multiple heterogeneous IT infrastructures, without creating disruptions that affect the quality of services and impact the security and integrity of the IT systems.

Furthermore, in the healthcare industry, when an IT infrastructure component doesn't work properly -for example an image that doesn't load on the screen in a surgery room, or a patient 's monitoring unit that stops communicating- the patient's life can be in jeopardy. IT is directly impacted and responsible for solving critical and potentially life threatening problems.

The solution

When changing and merging complex and mission critical IT systems, it is mandatory to permanently monitor how end-users could be impacted. Here are four critical aspects to keep under permanent control:

1. High availability and performance of the end-to-end infrastructure measured from the end-user vantage point and not only from the isolated IT silo standpoint (i.e. network or servers monitoring only).

2. The security standards compliance, not only in terms of proper endpoints protections, but also in terms of endpoints usage and end-user behavior. This, however, without violating end-users privacy policy.

3. The endpoints (virtual or physical) configuration standards. Standard configurations are much easier and much less expensive to support and maintain. Applications deployment have much more chance to succeed in a standard environment and trouble shoot problems in a standard environment is much easier as well.

4. Furthermore when standardizing the configuration one must be able to compare cost versus real usage of software, printers, servers and network and take the opportunity of optimizing the cost based on usage and performance. The precise measurement of each endpoint performance and usage helps justify whether a PC really needs to be replaced, upgraded or not.

These obvious requirements are not covered by existing monitoring technologies limited to the network and servers monitoring. They do not measure what the end-user experience

directly. Furthermore, and this is validated by leading analysts such as Gartner, 80% of the security threat originate from the endpoints, 50% of performance and Quality of service issues come from the endpoints themselves and more than 70% of the calls and alerts originate from the end-users and not from the network and server monitoring systems. A new approach focused on the end-user is needed to guarantee a high quality control.

Another challenge faced by GHdC and by many other hospitals, is the series of upcoming migration and virtualization projects. Be able to anticipate the impact of any endpoint configuration change and organize the sequence of tasks appropriately is key. We face a similar challenge when deploying new medical applications. We need to insure that the endpoints configuration and performance comply with the new application requirements.
That capability allows GHdC to significantly reduce the operational impact and therefore the related risks and costs.

To ensure the above convergence of standards and new deployment projects while maintaining our IT policy, we wanted to be able to monitor all the compliance parameters described above - security, performance, configuration, usage - in real time and permanently and we wanted to measure it from the medical services endpoints, i.e. the end-users standpoint.

Why NEXThink

NEXThink technology monitors all our critical key KPIs in real time, permanently, at the endpoints without ever accessing the endpoints themselves and without impacting their performance.

- Indeed the driver based technology has minimum impact on the end-point and the driver is pushing the information to a central server without filtering. It then very easy and quick to query the server and retrieve any information required.

- Furthermore, we can survey our infrastructure without writing a single line of code but only through a graphical interface allowing our team to retrieve rich and complex information across our infrastructure in a matter of seconds.

- NEXThink generates reports automatically and alerts the right people allowing us to be proactive or resolve problems much faster while diagnosing root causes.

- NEXThink also eliminates time consuming, cumbersome and costly reporting tasks for the upper management.

NEXThink and its partners propose a 4 to 6 weeks baseline service allowing us to leverage NEXThink ‘s capabilities immediately to audit our infrastructure and plan our project from the right place and be prepared for major migration and transformation projects.

This baseline service provided us with a rich set of detailed and dynamic data and gave us the opportunity to take immediate corrective actions and measure their impact in real time with NEXThink.

We diagnosed problems and were able to identified the root causes across multiple components including the endpoint, the network and the servers.

> ***The NEXThink Baseline Service approach is a perfect way to evaluate the operational value and the robustness and reliability of the platform, it uses only a fraction of the projects budget and gives immediate return on investment.***

While conducting the baseline service, NEXThink and its partner involved our team. This gave our specialists the opportunity to acquire the knowledge and support us continuously for the future steps of the project.

Pierre Jacmin, CIO at GHdC (Great Hospital of Charleroi).