

# SolarWinds® Supports High Levels of Patient Care in Lincolnshire

SolarWinds® solutions are helping the United Lincolnshire Hospitals NHS Trust to meet the 24/7 challenge of looking after thousands of patients at seven widely dispersed hospitals. Such an onerous responsibility demands an efficient and effective IT infrastructure, orchestrated by an ultra-reliable network, and SolarWinds tools are playing a key role in maintaining high levels of reliability.

## Customer

The United Lincolnshire Hospitals NHS Trust was formed in April 2000 by the merger of the three former acute hospital trusts in Lincolnshire. Through the three main hospitals and other four other sites that provide services, the Trust provides a comprehensive range of hospital-based medical, surgical, paediatric, obstetric, and gynaecological services to the 700,000 people of Lincolnshire.

More than 7,500 staff and volunteers deliver a wide range of healthcare services costing more than £390 million a year to provide. In an average year, the Trust treats over 180,000 accident and emergency patients, nearly half a million outpatients and almost 100,000 inpatients. The main hospitals are Pilgrim Hospital, Boston; Grantham and District Hospital; and Lincoln County Hospital. Limited services are available at Louth, Skegness, Gainsborough and Spalding.

## Challenge

The Trust has data centres at Pilgrim and Lincoln (40 miles apart) each with a pair of Cisco® 6509 switches in the network core, while the Grantham site has a single Cisco 6509. The network has around 300 access switches. The Trust is preparing to implement a Cisco Nexus® solution for a distribution layer at the Lincoln data centre. All sites connect via 1Gbps point-to-point links, managed by the National Health Service's N3 national broadband network.

Among the 7,500 staff, up to 3,000 users are active at any given time. Main applications are Microsoft Office®, McKesson® patient administrative software (PAS) system, and Web V for blood and pathology results. The Trust is about to update its electronic patient record (EPR) solution to McKesson's Medway PAS, accident and emergency (A&E), and business intelligence suite across the Trust, as a first step towards a full EPR.

### THE UNITED LINCOLNSHIRE HOSPITALS NHS TRUST AT A GLANCE

- Three data centers
- Five Cisco 6509 switches
- Around 300 access switches
- 100-plus physical servers and 200-plus virtual servers
- up to 3,000 users are active at any given time

“Without SolarWinds, we would struggle daily with issues, and given all the critical medical and administrative applications that rely on the network, I think we would have very serious concerns.”

- Jon Hill, Senior Network Engineer

## Solution

The Network team has relied on SolarWinds solutions for many years, so Senior Network Engineer, Jon Hill and his colleagues have excellent visibility into the network.

According to Jon, SolarWinds' network monitoring has been in place for seven or eight years. Initially, only two IT professionals looked after an expanding network. Their urgent need was for a clear insight into the network and to receive alerts when problems developed. They wanted to know when nodes went down, response times slipped, or packets were being dropped.

Jon's team evaluated solutions from only two vendors.

Today their primary tool is **SolarWinds Network Performance Monitor (NPM)**, which is viewed from Jon's laptop. They also use **SolarWinds Network Configuration Manager**, **Server and Application Monitor**, **VoIP & Network Quality Manager**, **Engineers Toolkit**, and most recently, **Virtualization Manager**.

The SolarWinds solutions are supplied and supported by Kenson® Network Engineering. According to Jon Hill: "Kenson, and in particular their account manager have been really good for support general account management. Although we do not log many support calls, they are really quick at responding to those I make. If required, they call in SolarWinds' engineers who are always readily available to resolve problems."

## Results

Discussing return on investment for the SolarWinds solutions, Jon Hill says the monetary and time savings from having a reliable network are incalculable.

"Just consider what would happen if our critical patient case applications were unavailable," he said. "If the system were to fail it would cost the Trust time and money, but more critically patient care would suffer. The big advantage of IT in the NHS is the efficiency derived from having updated information available instantaneously to all relevant staff. For instance, when a patient returns to a clinic after having X-rays, those X-rays are available almost immediately."

Today's ultra-reliable network results from Jon and his colleagues having deep levels of visibility into the network, thanks to the SolarWinds solutions.

"From day one, SolarWinds has given us the visibility we need," said Jon. "Before SolarWinds, we would be waiting for problems to happen, we were reactive — now SolarWinds allows us to resolve issues proactively before we receive complaints. We can fix many network faults even before the user calls to report them."

He added: "Without SolarWinds, we would struggle daily with issues, and given all the critical medical and administrative applications that rely on the network, I think we would have very serious concerns."

Jon Hill's views on the organisation's other SolarWinds solutions follow:

**NCM** - We bought NCM to help us with switch configuration and backup. It's a really good tool that allows us to back up the configs of our switches when these change, and storing remotely from the switches so that in the event of a failure, it's a 30-minute job to get a replacement re-configured with the saved config and installed. The other main job we use NCM for is batch config changes.



Network Performance Monitor (NPM) makes it easy to quickly detect, diagnose and resolve performance issues and delivers real-time views and dashboards that enable users to track network performance at a glance.

**SAM** - We acquired SAM to give us the visibility into the servers and applications, as some issues are first blamed on the network when it's actually the server/application at fault. SAM delivers the required visibility.

**VNQM** - We bought VNQM for monitoring voice call quality between our sites, we have also found it useful for checking WAN path quality and LAN path quality. It has proved itself by showing which is a LAN issue and which is a WAN issue.

**Engineer's Toolset** - We purchased it because as far as we could find there wasn't any other comparable product on the market at the time and have used it ever since. I use it mostly for troubleshooting—the main tools being Ping Sweep, Switchport Mapper, and all the SNMP tools. While Subnet calculator and TFTP server are not strictly a part of the Engineer's Toolset (they can be downloaded free), I couldn't be without them.

**VM** - We wanted to get better visibility into our VM infrastructure and give that visibility to everyone who had access to NPM rather than the three or four who had access to Virtual Centre.

## About Kenson

"Kenson has worked with United Lincolnshire Hospitals (ULH) and Jon Hill since 2008. Over this time, we have supplied a range of SolarWinds Products, Maintenance, and Kenson Professional Services. Jon first used Kenson to source products and support after attending the SolarWinds Comprehensive Training course at Kenson's training facility in Gloucestershire. He subsequently passed the SolarWinds Professional® (SCP) exam (SCP) exam. Jon has driven SolarWinds internally and further developed the relationship with Kenson who now support ULH at 2 Hospitals in Lincolnshire. If a new NHS organisation asks me for a reference site, ULH and Jon Hill always comes (at the) top of my list."

# IT Management Inspired by You.

SolarWinds (NYSE: SWI) provides powerful and affordable IT management software to customers worldwide from Fortune 500 enterprises to small businesses. In all of our market areas, our approach is consistent. We focus exclusively on IT Pros and strive to eliminate the complexity that they have been forced to accept from traditional enterprise software vendors. SolarWinds delivers on this commitment with *unexpected simplicity* through products that are easy to find, buy, use and maintain while providing the power to address any IT management problem on any scale. Our solutions are rooted in our deep connection to our user base, which interacts in our online community, thwack, to solve problems, share technology and best practices, and directly participate in our product development process. Learn more today at <http://www.solarwinds.com>.



EMEA Headquarters: Unit 1101, Building 1000, City Gate, Mahon, Cork, Ireland  
P: +353 21 5002900 | F: +353 212 380 23 | E: [sales.emea@solarwinds.com](mailto:sales.emea@solarwinds.com)  
Toll Free Numbers: Austria: 0800 201710 | France: 08055 40078 |  
Germany: 0800 6644677 | Netherlands: 0800 0201183 |  
Switzerland: 0800 000 678 | United Kingdom: 0800 028 6782

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