

## NHS trust improves the resilience and availability of critical medical systems with Loadbalancer.org

Whether they are responding to a life-threatening situation in A&E or running an out-patients' clinic, medical staff at the Northern Lincolnshire & Goole NHS Foundation Trust have IT applications that they can rely on. The organisation uses products from Loadbalancer.org to ensure that critical medical systems are up and running at all times, to support the delivery of fast and effective patient care.



Northern Lincolnshire and Goole  
NHS Foundation Trust



*Hospitals are 24/7 environments where unnecessary delays and IT failures can ultimately put lives at risk. Our use of products from Loadbalancer.org enables us to ensure that critical medical systems are now far more resilient and available to clinicians around the clock.”*

**David Bell**  
Network Technical Engineer,  
Northern Lincolnshire & Goole NHS Foundation Trust

### Challenges

- Ensure that vital medical applications are available to clinicians without disruption

### Solution

- Loadbalancer.org Enterprise MAX

### Benefits

- Improves patient care by increasing the availability of key medical systems
- Offers good value for money in balancing multiple applications
- Reduces IT expenditure due to cost effective product pricing and licensing
- Saves time in IT department with easy monitoring and reporting tools
- Includes excellent support, giving the trust complete peace of mind

## Challenges

More than 350,000 people depend on the Northern Lincolnshire & Goole (NLaG) NHS Foundation Trust every year for an incredibly wide range of life-saving and life-enhancing healthcare services. The organisation operates three hospitals, delivers extensive community services and has 6,500 employees.



Committed to constantly improving its services in a cost effective manner, the Trust decided to invest in a new digital imaging solution, known as PACS (Picture Archiving and Communication System), a technology that makes images such as x-rays, CT and MRI scans available electronically to hospital-based consultants and GP practices alike, almost instantly. The Trust quickly realised that it would also need to install load balancing solutions to ensure the resilience of its PACS and enable it to deliver high standards of patient care.

## Solution

NLaG investigated a large number of similar load balancing solutions from a range of vendors. "Some load balancers were very pricy indeed," recalls David Bell, the organisation's network technical engineer. "In contrast, the enterprise-class products from Loadbalancer.org were very cost effective, and the company went out of its way to demonstrate precisely how the solutions would work in our IT environment."

The Trust selected a pair of Enterprise MAX products from Loadbalancer.org. With support from the expert team at Loadbalancer.org, it configured these solutions in 'one-arm mode', to optimally channel DICOM, HL7 and other related traffic to its PACS application servers located on different sites. Now, if an application server fails, the Loadbalancer.org products automatically and instantly direct the traffic to alternative servers, maintaining service availability for users.

Further resilience is ensured by the active/passive configuration of the two Loadbalancer.org products, so in the unlikely event of an outage, the other device will seamlessly step in and carry on. The Trust can also carry out planned maintenance on its servers without having to schedule downtime for the entire PACS facility.

## Results

The Loadbalancer.org devices have proven so effective that the Trust is now using them to improve the availability of several important medical systems, in addition to its PACS. These include essential pharmacy and pathology applications, a communications system used by employees and a new web-based patient information portal that is accessed by clinical staff via touch-screen consoles in wards. Consequently, the Loadbalancer.org products now play a key role in helping the Trust to deliver a high quality service for patients, by eliminating downtime in critical IT applications.



*Loadbalancer.org enables us to ensure the high availability of this mission critical system and create a reliable application platform that our customers can depend upon"*

Bell says: "The Loadbalancer.org products have been so successful that we are now incredibly confident about using them for more of our critical medical systems. The Enterprise MAX is both scalable and flexible, enabling us to gradually add more services and configure different services to work in different ways."

Bell and his colleagues in the small IT team find the Loadbalancer.org products very easy to use, which enables them to work more efficiently. "Without a doubt, the Loadbalancer.org products help us to save time," Bell says. "The products have a colour-coded monitoring screen, which makes it very easy for us to see the state of different services and take action, as needed."

Finally, Bell is incredibly enthusiastic about the quality of the support offered by Loadbalancer.org. "The support package is absolutely first rate," he says. "The team at Loadbalancer.org knows our deployment really well and has always been very helpful in any way we have asked. I cannot fault the support at all."

## About Loadbalancer.org

Loadbalancer.org's mission is to ensure that its clients' businesses are never interrupted. The load balancer experts ask the right questions to get to the heart of what matters, bringing a depth of understanding to each deployment. Experience enables Loadbalancer.org engineers to design less complex, unbreakable solutions - and to provide exceptional personalised support.

