

## Advanced Load Balancing Solution Supports Medical Portal

*Birmingham Women's and Children's NHS Foundation Trust supports vital clinical applications portal with A10 Networks Thunder ADC*



**Birmingham Women's and Children's**  
NHS Foundation Trust

Industry | Healthcare

Birmingham Children's hospital is a leading United Kingdom (UK) specialist paediatric center, offering world-leading care to more than 90,000 children and young people from across the country every year. The women's hospital provides a range of specialist healthcare services to more than 50,000 women, men, and families annually. Further, the combined Trust employs some of the world's most highly regarded expert clinicians to provide outstanding patient care.



**Network Solution**  
A10 Thunder CFW



**Critical Issues**

- Needed to deliver consistent, reliable access to the critical applications that enable clinicians to deliver patient care
- Improve load balancing



**Results**

- Improved levels of service availability and reliability for clinicians, enabling them to provide excellent patient care
- Enhanced performance metrics on the clinical portal
- Improved support with day-to-day patch management without interrupting clinical service provision



*We looked at what we were trying to achieve, and it ticked all the boxes. So, based on cost and functionality, that's why we went with A10. Because of the COVID-19 pandemic, we had to get up and running additional VPN services really fast. A10 Networks' products really helped support that from a load balancing perspective, enabling us to bring in separate new applications quickly in the background so we could expand rapidly to meet service demand.*

– David Marshall  
Head of IT, Birmingham Women's & Children's Hospital  
NHS Foundation Trust



## The Challenge for Birmingham Children's Hospital

The NHS Foundation Trust was planning the implementation of a platform for its clinical base portal. This portal is central to effective patient care management as clinicians use it to access patient information, manage appointments and make notes on patient care programs. The platform also needed to support the genetic testing tool genome-wide efficient mixed-model association (GEMMA) that tests association in genome-wide association study (GWAS) data.

To effectively implement the platform, the trust wanted advanced load balancing functionality, which was something it hadn't previously had in place. It was, therefore, seeking a new solution to support this mission-critical platform rollout.

### Selection Criteria: Advanced Functionality in a Cost-effective Product

As a publicly funded organization, the trust wanted to find a solution that was both cost-effective and highly functional.

The trust had a checklist of functional and technical requirements that the solution needed to meet in terms of load balancing and support for algorithms that can be tailored to support the trust's specific requirements. They looked at the marketplace to identify the most appropriate solution that also had the best value.

Following a competitive review and proof-of-concept exercise, the team at the trust, led by Head of IT, David Marshall, selected the A10 Thunder® Converged Firewall (CFW) solution.

The Trust chose Thunder CFW because it is A10's all-inclusive product that includes the Thunder Application Delivery Controller (ADC) product and feature set.



In essence, A10 Thunder CFW is a complete application solution capable of helping to provide the availability of essential servers, protecting the trust's mission-critical applications, and ensuring fast, uninterrupted content delivery. As such, it represented a strong and cost-effective answer to the trust's requirements.

*Head of IT, David Marshall, sums up its decision: "We looked at what we were trying to achieve, and it ticked all the boxes. So, based on cost and functionality, that's why we went with A10."*

## The A10 Solution

The trust selected the A10 Thunder 1030S model and found it to be a highly effective solution for their needs. David Marshall found that A10 Networks' post-sales support was excellent, too, with a locally based engineer on hand to help with any questions or issues.

After four years working with the A10 Thunder 1030S, the trust was looking to roll out the clinical application further and knew that there would be more connections and more concurrent connections being utilized. This prompted the decision to upgrade to the newer A10 Thunder 1040S. As David Marshall explains, "The 1030S appliances had performed just how we wanted to so there wasn't any reason to look elsewhere when making the choice to upgrade."

And that switch to the Thunder 1040S went smoothly thanks to the system engineer's support and assistance.

## Results Achieved: Exceptional Performance in Challenging Circumstances

The investment in advanced load balancing capability was a critical need for the trust, but it was also something that paid dividends when the COVID-19 pandemic struck.

As David Marshall explains, "Through COVID-19 we had to stand up additional VPN services fast. We had to deploy a lot of additional laptops and other elements quicker than we've ever done before. The Thunder appliances really helped support that from a load balancing perspective, enabling us to bring in separate new applications quickly in the background so we could expand rapidly to meet service demand. That was very, very helpful. It enabled us to provide clinical support extremely quickly to a lot of service users, and we utilized the product to help that rapid deployment. So, from that perspective it paid for itself very quickly."

Using the A10 Thunder load balancing solution has significantly improved the performance metrics of the clinical portal and has also been valuable in supporting day-to-day patch management, enabling the team to take elements out of the server queue for updating without impacting clinical services.

*"A10 Networks helped us to rapidly introduce additional VPNs and devices, from a load balancing perspective. This enabled us to quickly meet service demand. That was very, very helpful. It enabled us to provide clinical support extremely quickly to a lot of service users, and we utilized the product to help that rapid deployment. So, from that perspective it paid for itself very quickly."*



## Next Steps for Higher Security

David Marshall is aware that the A10 Thunder appliance has extensive security functionality that can be further utilized to support the trust. The governance and security that A10 Thunder can provide are areas of significant interest and the team aims to work with A10 to gain a full understanding of the extra functionality available and how to best implement it into the organization's infrastructure.



### About Birmingham Women's and Children's NHS Foundation Trust

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