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Andrew Shaw
Solutions Architect
Lloyds Pharmacy

Lloydspharmacy
Your local health authority



Lloyds Pharmacy Prescribes F5's BIG-IP Local Traffic Manager for Improved System Performance

Industry

Healthcare

Challenges

- Increase volume and unpredictable pattern of network traffic
- Improve system performance
- Achieve better utilisation of the network resources

Solutions

BIG-IP LTM 6400

Benefits

- Extreme peaks and troughs of data smoothed into a more manageable flow
- More efficient usage of available network resources
- Bandwidth freed up and priority applications guaranteed access
- Long term cost reduction due to reduced system complexity and less frequent need for hardware upgrades

Overview

Lloyds Pharmacy Ltd is the largest community pharmacy operator in the UK, with over 1,500 pharmacies located primarily in the community and health centers. The company is a key participant in the NHS' major IT Programmed, Connecting for Health, set up to deliver the UK's National Programme for IT and bring modern computer systems into the NHS to improve patient care and services. Over the next 10 years, the National Programme for IT will connect over 30,000 GPs in England to almost 300 hospitals and give patients access to their personal healthcare information. A central element of that is the Electronic Prescription Service (EPS), to which prescribers and dispensers in primary care in England are gradually being connected. By 2007, GP surgery, community pharmacy and other dispensers are expected to have access to the service.

Challenges

Lloyds Pharmacy has invested considerable time and resource in its role as a pioneer of the EPS, reconfiguring all its systems, software and networking to meet the demanding performance and security criteria of the EPS network.

“We had a good idea of what to expect in terms of network traffic, once our connection to the EPS went live,” comments Andrew Shaw, Solutions Architect with Lloyds Pharmacy. “Even so, the

sheer volume of messages traveling between our branches and Head Office processing systems is enormous.”

With around seven messages required to process every prescription (including receipts, acknowledgements and confirmations), the 100 million prescriptions written annually generate nearly 1 billion items of network traffic – just under 3 million per day. Lloyds Pharmacy's share of this traffic will result in about 250,000 messages a day when the system is fully live.

The challenge of this large and growing traffic volume is compounded by its spiky pattern. As Andrew Shaw explains: “Traffic will experience huge surges after morning and afternoon surgeries during weekdays. Weekends and night times are quieter, meaning that our processing resources range from strained to idle.”

The increased volume and unpredictable pattern of network traffic created an immediate need for better traffic management, to improve system performance and achieve better utilization of the network resources. Lloyds Pharmacy carried out its research and began to look closely at F5 Networks Application Delivery Networking solution, finally visiting F5 at a major IT exhibition. Greeted by personnel from F5's UK partner, Nebulas Security, the Lloyds



Pharmacy team was able to explain its challenge in considerable detail.

“The Nebulas Security team listened carefully, and was clearly familiar with F5’s products,” recalls Shaw. “They were able to explain which of F5’s products would suit us, how these would work with our setup and what benefits we could expect immediately, and in the long run. We were impressed with their expertise and eventually agreed to see a demonstration.”

Solution

Within days of that meeting, Nebulas Security implemented a pilot of F5’s BIG-IP Local Traffic Manager 6400. Located in an organisation’s data centre in front of servers, firewalls and gateways, this device applies a set of customer-defined rules and infrastructure optimization capabilities to all network traffic and applications. Its traffic shaping capabilities also result in a far smoother traffic flow, with priority applications and packets receiving guaranteed bandwidth even during peak activity. Processing effort is distributed automatically across all available servers. Application performance is accelerated, even across a mixed-mode network, and bandwidth availability is increased.

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The power of the BIG-IP Local Traffic Manager has made it a central control point for the entire Lloyds Pharmacy network. A real workhorse, it handles address distribution and crypto-offload (the encryption and decryption of high speed network streams), along with standard data management, in a highly secure environment. More efficient data handling means a general reduction in complexity, more bandwidth and less pressure to upgrade hardware.

“Nebulas Security’s expert knowledge and rapid response to all our requests means we completed the implementation of this project quickly and efficiently,” concludes Andrew Shaw. “We achieved all our objectives and created a robust network well capable of handling our rapidly growing workload. Ultimately, this will contribute to the gradual elimination of paper from the entire prescribing system, and a smoother transition to the Electronic Prescription Service.”

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