After the acquisition of HBOS plc, Lloyds TSB Group plc was renamed Lloyds Banking Group plc (LBG). Now the second largest retail bank in the U.K., one in three people use LBG. The group has more than 75,000 full-time staff and over 2,000 branches in the U.K., as well as a presence in another 30 countries. It has more than 30 million customers and lends to one in four first-time homebuyers in the U.K. LBG’s product set ranges from current accounts and savings to credit cards, personal loans and mortgages.

CHALLENGES

• Understanding risks after merger of two complex networks
• Understanding how merger affects known risks
• Confirming the perimeter is secure
• Identifying and remediating residual vulnerabilities on the combined network

RESULTS

• Complete audit of IT infrastructure critical to the business
• Effective management of operational risks
• Creation of risk management and security frameworks built to last
• Smooth, timely merger of complex networks with minimal risks
The Problem

One of the major challenges faced by the newly formed LBG board was understanding how the convergence of the pre-existing “heritage” networks would impact the risk profile of the new organization. The merger – one of the biggest in U.K. corporate history – created a sprawling combined network, comprising approximately 200,000 endpoints. In addition to the scale of this challenge, Lloyds TSB and HBOS had operated under different approaches to security and risk management, and had different understandings of possible threats and vulnerabilities.

“A key strategic issue for us was understanding any critical operational risks attendant upon the merger of the Lloyds TSB and HBOS networks and managing the impact of those risks. The combined team of BT and Lloyds Banking Group had a major planning success in correctly identifying the level of risk involved in vulnerability scanning. The accurate assessment and responsible reporting and mitigation planning of this risk were key to the project’s success.”

— Gerard Hearn
Programme Manager
Lloyds Banking Group

Scope and Selection Criteria

The LBG board needed proper due diligence performed on the plans for the merger of the two legacy networks; and, given the complexity and scale of the task, it was imperative that it be carried out by an independent, trusted third party with the necessary credentials and expertise. Specifically, the party tasked to complete the due diligence needed to report on several critical points – in a very short time frame – including:

- New risks introduced by the convergence of the heritage networks
- Changes to existing (i.e., known) risks due to the convergence
- Security of the network perimeters
- Residual vulnerabilities on the combined network and their remediation plans

Deployment

LBG chose Skybox® Security’s partner and customer BT to implement an agreed solution. BT acted as the system integrator and project manager responsible for discovery, analysis and monitoring of the heritage networks.
**Discovery**

BT had to ensure the establishment of a secure perimeter of the newly combined network, as well as the various hosts/endpoint devices defined broadly as anything other than a router or switch. This was accomplished through combined efforts from Lloyds, HBOS and BT interrogating routers, switches and firewalls for configuration information and router tables.

**Analysis**

McAfee Foundstone port scanning capabilities were used to identify vulnerabilities on the host devices on the network. These capabilities were chosen based on their integration with the existing HBOS systems.

**Modeling**

Skybox Security’s automated risk modeling software examined and prioritized the risks presented by identified vulnerabilities. Skybox quantified the risk exposure through its patented attack simulation algorithms which correlate network access and business asset classifications with the vulnerability data.

BT produced the final report summarizing all the findings and recommendations. The short-term remediation recommended in the final report was enacted before the networks were merged, while long-term measures for process and procedures improvement were rolled out over time.
The Solution


The Skybox platform automatically turns vast amounts of complex data into context-aware, prioritized actions, even on the scale of enterprise security management. Powerful security analytics software combined with modeling, simulation and intelligent automation gives context to unique IT environments, improves business services and prioritizes remediation and threat response.

The Network Assurance module provides total network visibility in the context of an organization’s network devices and security controls, showing how they work together or leave the organization exposed. Network Assurance finds potential attack vectors, checks correct implementation of security zone policies throughout hybrid networks and troubleshoots root causes of network outages.

Firewall Assurance completely automates firewall management tasks across different firewall vendors and complex rulesets. It readies networks for action by continuously verifying that firewalls are clean, optimized and working effectively. Firewall Assurance extends beyond firewall rule checks, analyzing possible traffic between network zones to find hidden risk factors, flagging unauthorized changes and finding vulnerabilities on firewalls.

Vulnerability Control is a context-aware vulnerability management solution that goes beyond traditional vulnerability assessment. Vulnerability Control consolidates vulnerability sources and uses scanless vulnerability detection to fill in blind spots. It also uses attack simulation, advanced vulnerability intelligence and analytics to quickly prioritize and eliminate attack vectors.
The Results

LBG received an independent audit of critical infrastructure, complete with due diligence performed on one of the U.K.'s largest network infrastructures. The skill and expertise of the highly respected third-party organization BT enabled effective management of operational risks. Key stakeholders had the peace of mind that the network merger would be smooth, timely and occur with minimal risks.

With the comprehensive discovery of network risks and vulnerabilities, the client was able to create risk management and security frameworks that were tailored to them and to establish a solid foundation for a network that would continue to evolve.