BAT Creates a Stable Network for SAP Applications with BIG-IP® WebAccelerator™

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Brian Lane,
Global Portal Centre Manager
British American Tobacco

Industry
Manufacturing

Challenges
- Ensure network stability to support a global SAP application portal
- Provide high availability and performance for users of two SAP-based HR applications
- Reduce the cost of IT ownership

Solution
- BIG-IP® Local Traffic Manager™ (LTM) 6800 with WebAccelerator™ module

Benefits
- Stable and reliable network for global SAP applications
- Consistently high performance for 12,000 users around the world
- Reduction in data center costs due to compression of network traffic

Overview

British American Tobacco (www.bat.com) is the world's second largest tobacco group, with 300 different brands sold in more than 180 markets. The company was founded over 100 years ago, but its use of IT is right up to date.

An established user of SAP solutions, British American Tobacco (BAT) regularly develops and deploys new SAP-based applications. The company decided to create a global SAP application portal to help it reduce its application delivery and maintenance costs. However, before BAT could launch two SAP human resource applications on the new portal, it had to be absolutely certain that its network infrastructure could deliver the high performance that users expected.

BAT, supported by network security partner ITC (www.itc-network.com), deployed F5's BIG-IP Local Traffic Manager (LTM) with the add-on WebAccelerator module. The product has not only ensured the stability of the network that supports its global SAP portal, but has also contributed to lower IT costs in the company's global data centers.

Challenges

BAT faced a dilemma common to most very large enterprises. The company was committed to improving the efficiency of its global operations by developing its SAP system and deploying new SAP-based applications. Yet, at the same time, it also had to keep a tight rein on its total IT ownership costs.

To help it address this challenge, BAT took the strategic decision to implement a global SAP application portal. This strategy would remove the need for multiple application-specific portals around the world and create a single front end for all new SAP-based applications. The company anticipated that its development of a global portal would enable it to significantly reduce IT infrastructure and maintenance costs.

In order to support the deployment of two new SAP human resource (HR) applications, BAT decided to roll out its global portal. The first of these HR applications had been developed in-house by BAT using SAP's NetWeaver development tools. Called TalenT, the solution allows managers to monitor the performance of staff against pre-agreed targets. The second new HR application was a self-service tool, called Enable, which uses standard SAP functionality. BAT knew that more than 12,000 employees would use these two applications. It was therefore essential for the portal to deliver consistently high performance.

From experience, BAT knew that a web acceleration product would be a crucial component of the network that would underpin the new global

portal infrastructure. A few years before, when BAT had rolled out an SAP Supplier Relationship Management (SRM) solution globally, the company had experienced a succession of stability problems with the web-based front end. BAT only alleviated these problems when it introduced a web accelerator to its network.

“We didn’t want to make the same mistake twice,” says Brian Lane, Global Portal Solution Centre Manager at BAT. “Based on our past experience we immediately knew that we had to have a web acceleration device, particularly as we had varying network speeds around the globe.”

Solution

At the time, technicians within BAT’s IT security team were already running tests on the application security features of F5 solutions. The IT department therefore decided to evaluate whether F5 could meet the company’s extended requirements for both wide area network (WAN) security and web acceleration.

One of BAT’s existing IT partners, ITC, had strong experience in deploying and managing web acceleration devices in SAP environments. BAT therefore asked ITC to carry out a competitive evaluation of F5’s BIG-IP LTM 6800 with the add-on WebAccelerator module, running it alongside the company’s existing web acceleration device on the SAP SRM application for one week. This comparative analysis revealed BIG-IP LTM significantly shortened application download times and increased response times—by 45 percent.

The results of this pilot were enough to convince BAT. “During the evaluation period, the F5 product performed better or equal to our existing product,” explains Lane. “In addition, we had concerns about support for our existing solution, whereas we knew that we would get strong support for the F5 product, both from F5 and from ITC.”

Brett Milborrow, Senior Security Consultant at ITC, says, “Based on our knowledge of F5 and the results of the competitive evaluation, we felt very confident in recommending BIG-IP LTM to BAT. As well as improved performance, we felt that there would be long-term advantages for BAT from selecting a product that could meet both its web acceleration and WAN security requirements in one integrated solution.”

F5 provides its solutions pre-configured for popular enterprise applications, such as SAP, Microsoft, and Oracle, under an umbrella approach called the Application Ready Network. Therefore, F5 was able to supply ITC with products that were already optimized for BAT’s SAP environment. “The F5 solutions worked with our SAP portal straight out of the box,” says Lane. “In comparison, the previous accelerator product that we used was not SAP-savvy and took many weeks to set up to work with SAP.”

ITC configured four BIG-IP LTMs with WebAccelerator modules with standard rules to meet the precise requirements of BAT. It then dispatched two units to each of BAT’s data centers in Frankfurt and Singapore. At each site, two F5 BIG-IP LTMs with WebAccelerator module solutions are deployed in a pair to balance traffic across multiple servers and ensure high availability for the global portal. The solutions are also used to balance traffic for the company’s SAP Internet Transaction Servers.

“From my point of view, it was completely seamless,” says Lane. “An engineer at the data centers just had to unpack the products and plug them in. ITC did some additional configuration remotely through the F5 devices, and the products immediately started to work.”

Benefits

F5’s solutions have performed very strongly, enabling BAT to guarantee high availability for its new global portal and SAP HR applications. Lane says, “I am more than happy with the choice of F5. BAT has never had a network outage due to the F5 solutions. The BIG-IP products are totally secure, robust, and easy to use."

Within the company’s data centers in Frankfurt and Singapore, BIG-IP LTM handles all of the different incoming sessions from all over the world and manages these sessions back to the SAP web application server. “The F5 solutions do this extremely well,” says Lane. “They make the network that supports our global portal and SAP web applications very stable.”

In addition to application stability and high performance, BAT also benefits from reduced operating costs. At some of its data centers, the company pays based on the volume of network traffic. The ability of BIG-IP LTM to handle caching and compression is therefore extremely beneficial.

“If we produce ten gigabytes of network traffic per week in a certain data center, the F5 solution can reduce this to one or two gigabytes,” estimates Lane. “We therefore only pay for two gigabytes of traffic, not ten. In addition, we need to invest in fewer servers, which reduces our hardware and operating system costs.”

Lane adds, “The F5 solutions have contributed to a big reduction in our total cost of IT ownership. I am certain that the F5 products will pay for themselves very quickly.”

Use of the F5 devices has also made it much easier for BAT to carry out routine network maintenance. Lane explains, “Because users are connected to an F5 device, we can easily take servers down one at a time when we need to do a reboot. Users are instantly re-routed by F5 to one of the other servers and don’t even notice! This feature alone has saved us so much system downtime.”

Since the deployment of the F5 products, ITC has continued to support BAT by fine-tuning the products to ensure that they meet the requirements of the global portal completely. “The F5 devices are very flexible, allowing them to be configured easily,” says Lane. "ITC has been an integral part of the project. The company had willingness to work with us and an excellent knowledge of F5 products, which helped us to meet our deadlines."

Following the success of the F5 solutions in Frankfurt and Singapore, BAT now plans to install BIG-IP LTM at the last of its three global data centers in Brazil. In addition, it intends to use BIG-IP LTM with the WebAccelerator module in conjunction with its SAP SRM application, when the maintenance agreement for the current acceleration device expires.

The company believes that one of the main advantages of BIG-IP LTM is the integrated nature of the solution. Lane concludes, “F5 provides web acceleration, load balancing, caching, compression, and security all in one box, with a single graphical interface…. That’s absolutely terrific.”

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