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## Leading Automobile Manufacturer Uses F5 Products to Ensure Fast, Available and Secure Access for Its Internet and Intranet Sites



### Company:

BMW Group

### Industry:

Automobile and Motorcycle manufacturing

### Challenges:

- Reduce costs
- Provide high availability for SAP-based applications
- Improve performance for intranet and Internet sites

### Solution:

BIG-IP® v9

### Benefits:

- Reduced provisioning costs for SSL security across the worldwide network
- Secure, fast and available applications for both intranet and Internet users
- Reduced downtime
- Open architecture for future add-ons



Photo courtesy of the BMW Group

### Overview

BMW Group needed to ensure that all of their intranet and Internet sites were fast, available 24/7, and highly secure for employees and partners. BMW Group has three global data centers – one each in Munich, Asia, and the United States. These data centers serve automobile plants throughout Germany, England, South Africa, and the U.S. The centers also serve 30 sales subsidiaries representing national sales organizations for each country.

### Challenge

High availability and load balancing were important requirements because the device selected would be charged with handling all of BMW Group's web-based applications. In the initial pilot phase, two key applications were tested: one that would allow employees to self-service their Human Resource information (i.e. time sheets, expenses, etc.), and the other being a parts system application used in the development of automobiles.

SSL scalability was another key issue. Built-in SSL acceleration, termination and re-encryption within the device would take the load off the servers, help those servers perform better, and keep the sessions secure.

A third concern was the ability to maintain persistence or "sticky" connections. Persistence is important because it ensures that users of applications stay connected to their work. For example, users can enter information (such as name, expenses, part numbers) on one page, go to another page, and when they return to the original page, the information remains intact – saving time because that data doesn't have to be re-entered.

### Solution

BMW Group uses F5's BIG-IP v9 application delivery networking solution. The specific model, a BIG-IP 6400, is a dual-processor unit capable of up to 220,000 Layer 4 requests per second, 75,000 Layer 7 requests per second and 15,000 SSL transactions per



second, all while supporting up to eight million concurrent sessions.

BMW Group is currently migrating all of their applications to BIG-IP to keep them available 24/7, secure, and fast. In addition to high availability and performance, there are other significant benefits to using BIG-IP, including the SSL functionality and scalability. Applications requiring secure SSL connections, along with new application roll-outs, need easy expansion paths. With the BIG-IP SSL licensing model, businesses can purchase additional capacity as needed, without buying more servers to do the same thing, and without the additional overhead required to maintain each and every one of those servers.

Another key BIG-IP function is its health checking capability. Being able to perform these Layer 7 health checks is important because it allows businesses to not only ensure that a server is up and running, but that it is answering correctly.

Although BMW Group only recently deployed BIG-IP, they're already eyeing several other available features on the product, including Compression. Thanks to BIG-IP's unique TMOS architecture, which allows new functionality to seamlessly plug-in as software modules, they are free to add new capabilities to the BIG-IP v9 product as their needs change and grow.

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