



“Being able to balance and protect certain services, as well as balancing user access to the Internet, has already brought tangible benefits such as high service availability, increased security, and a reduction in the use of bandwidth”

José Manuel Valiño Blanco  
CIO Caixa Galicia



## Caixa Galicia improves service, availability, and security with F5 Networks

### Industry

Banking and Finance

### Challenges

- Balancing applications
- Balancing Internet access lines
- Increasing security levels and protecting applications from possible attacks

### Solutions

BIG-IP Application Security Manager (ASM), BIG-IP Link Controller (LC), and BIG-IP Local Traffic Manager (LTM)

### Benefits

- Reduction in the use of bandwidth on primary Internet access lines
- Increased security in applications against possible attacks
- High service availability

### Description

Caixa Galicia is one of the most prominent financial institutions in Spain, eighth in terms of the size of its balance sheet, and the leading Galician bank.

With a network of 845 branches, Caixa Galicia operates in all Spanish autonomous communities and has enjoyed increasing penetration in the European and American markets. Its growth policy has been rewarded with a business volume that has now risen to 69 billion euro.

Under the targets set in the Strategic Plan, the bank is becoming increasingly consolidated as a major commercial platform, with over two million customers, around 500,000 of whom use its online banking facilities.

### Challenges

Reflecting key strategic objectives, Caixa Galicia's primary goal is to become consolidated as a commercial platform, with business units specialising in the design of products aimed at customers, and a distribution channel structure aimed at sales and quality service. The increase in the number of branches, added to developments in the various electronic banking services offered by the bank, such as the “On Caixa Galicia” virtual bank and financial services accessed via mobile phones led to the need to improve the security and availability of the services offered.

The main challenges consisted of balancing the applications and the Internet access lines – creating a secure environment that would allow the organisation to be fully functional while guaranteeing the security of the applications and services used.

Grupo Antea, which carried out this project, did some consultancy work on the premises of Caixa Galicia to find out exactly what their requirements were and to offer the best possible response to their specific needs.

On behalf of Antea, two departments were involved in the project: Commercial – Presales, which took on the first part that entailed carrying out the consultancy work, offering F5's ASM, LC and LTM solutions, explaining the improvements they could make to Caixa Galicia's infrastructure and demonstrating the capacities of the solutions in the test phase. The Technical Department took care of the implementation phase.

### Solution

The solutions chosen were BIG-IP Link Controller, designed for monitoring the availability and performance of multiple WAN connections to optimise Internet access, BIG-IP Application Security Manager, an application firewall that addresses the security of business applications, and BIG-IP Local Traffic Manager, which



balances requests from users based on content.

The initial technology requirement from Caixa Galicia arose from the need to balance legacy applications linked to session variables and web server clusters based on balancing software with serious infrastructure limitations. "We were aiming to achieve the balancing of applications that by their very nature were not designed for balancing environments," said José Manuel Valiño Blanco, CIO of the bank.

In the first phase of the project, a prototype was introduced to balance services in development and pre-operation. In this way, the viability of the solution was validated and a second phase took place, consisting of migration of non-balanced services and NLB clusters to an environment load-balanced by F5. The third phase of the project involved the security aspect, activating ASM on the pre-operation sites of critical services for subsequent utilisation in the production environment.

With respect to balancing the Internet access lines, an initial product prototype phase took place in which connection to the Internet of the internal web proxies was balanced through low cost and smaller capacity lines.

### Benefits

Among the most important benefits provided by the solutions implemented in the bank were high service availability, reduction in the use of bandwidth by the primary Internet access lines and an increase in application security levels.

"Although the Caixa Galicia internal development team follows a set of security regulations in application development, we can never be sure whether a modification may introduce a security leak," explained José Manuel Valiño Blanco, IT Manager of the bank. "With ASM in its most basic configuration, the applications can be protected against both this type of error and from the most frequent attacks at application level. It can also protect third party applications."

Among the advantages of the F5 solutions, Caixa Galicia highlighted their flexibility of adaptation to specific environments and the solution's all-round ease of management and power. "Being able to balance and protect certain services, and balancing user access to the Internet has already brought tangible benefits, such as high service availability, increased security and a reduction in the use of bandwidth," José Manuel Valiño Blanco summed up.

Implementation took place in several phases. The LTM prototype took approximately one month, while migration of non-balanced services took between four and six months. Conversely, the LC prototype was ready in two weeks. All solutions are now in the final implementation phase. "For us, it has been a challenge to carry out all migration of the applications to the LTM/ASM environment and at the same time make the most of the proxy, compression and SSL acceleration offered by the F5 LTMs," concluded Juan Pedro González, Managing Director of Antea.

**F5 Networks, Inc.  
Corporate Headquarters**  
401 Elliott Avenue West  
Seattle, WA 98119  
(206) 272-5555 Voice  
(888) 88BIGIP Toll-Free  
(206) 272-5556 Fax  
[www.f5.com](http://www.f5.com)  
info@f5.com

**F5 Networks  
Asia-Pacific**  
+65-6533-6103 Voice  
+65-6533-6103 Fax  
info.asia@f5.com

**F5 Networks, Ltd  
Europe/Middle-East/Africa**  
+44 (0)1932 582 000 Voice  
+44 (0)1932 582 001 Fax  
emeainfo@f5.com

**F5 Networks  
Japan K.K.**  
+81-3-5114-3200 Voice  
+81-3-5114-3201 Fax  
info@f5networks.co.jp