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Peck Chuan Phiau  
Assistant IT Manager (Network & Operations)

## Total Traffic Management — on and off air



### Industry:

Airfreight

### Challenges:

- Heavy traffic
- Network downtime
- Security risks

### Solution:

F5’s BIG-IP® load balancer

### Benefits:

- Drastic reduction in delays and incidents related to server speed

### Overview

Cargo Community Network Pte Ltd (CCN) is a system provider specialising in providing e-commerce and EDI services to the airfreight industry, allowing cargo agents and ground handlers to do business online with the airlines serving the region. Since its inception in 1991, CCN has conscientiously built its expertise to successfully provide a comprehensive array of products and services, from the front-end operation to the back end management. From airfreight management system (SPECTRUM), to Aircargo Exchange Internet System (AXIS) and even Electronic Payment and Invoicing (EPIC), CCN is harnessing technology to e-enable the entire air cargo community.

### Challenges

In the last few years, the popularity and success of CCN’s products and services has helped the company to expand beyond the shores of Singapore. SPECTRUM alone connects nearly 500 cargo agents in Singapore, Philippines, Malaysia, China and Indonesia to computer systems of 22 major cargo airlines. SPECTRUM is also accessible to more than 3000 cargo agents in Asia, Europe and North America via CCN’s connection to some 15 overseas cargo community systems.

Naturally, every connection involves a gigantic amount of information exchange, not to mention the number of transactions that occur simultaneously. Traffic volume multiplies by the throngs, up to four million in a month, which is putting immense pressure on the IT team as it is finding it increasingly difficult to provide for and manage the flow of traffic to and from the system.

Most important, CCN is concerned that its customers may experience delays in accessing critical information, especially during the peak hours, as it could result from the lack of available servers to attend to their requests at that point in time. Although much effort was made to improve the servers’ performance, the issue of downtime possibility still haunts them, as their customers have zero tolerance for disruption.

“As a result of nature of our mission critical applications, we foresee the pressing need to prevent bottlenecks from occurring as demand for our services increases,” said Teow Boon Ling, Director of Information Technology, CCN. “The need to guarantee availability, ensure reliability, and provide security is even more apparent when we started to host for airlines,” he added.





## Solution

In June 2001, CCN went in search of a web load balancing solution. "We wanted a system that is robust with no single point of failure, is appliance-based and complete with excellent local support," said Teow.

F5 Network's BIG-IP load balancer emerged the best choice for CCN as its total solution can be built quickly and inexpensively, without having to make massive application architectural changes or buying expensive midrange or high-end servers.

The solution was purchased in September 2001 and it took the engineers only a short while to configure to demonstrate a working solution. Teow and his team were impressed by the ease of use of the web-based administration tool, and most importantly, when the solution was plugged into the production server network, it worked like a breeze and the transition was flawless.

"I'm impressed with F5's support and commitment to us and their ongoing effort to improve their range of products. I believe that to have a setup that is robust and at the same time able to provide high level of performance, we do not just look at server load balancing. There are other areas that we need to look into, for example dynamic DNS, caching, high availability of equipment, ISP load balancing, and so on, and F5 has the solution and technology to address all these areas. This shows that F5 is very focussed in providing high availability solutions and I'm sure they would have a solution for me if needs arise," said Peck Chuan Phiau, Assistant IT Manager (Network & Operations), CCN.

With the proven track record of F5 and having used it with ease for almost 2 years, CCN decided to purchase a second pair of F5 Load balancer to manage its internal application servers.

With the load balancers set up to support the 20 servers in the back-end, the number of incidents related to server speed and delays are now drastically reduced, enabling CCN to continue to focus on improving its quality of service while reducing its operational costs for quicker return on investment.

## Conclusion

CCN has come a long way, and they are now positioning themselves to be the regional leader in providing e-commerce services to the air cargo community, fulfilling the communication needs of the industry. New initiatives like web-enabling their mission-critical applications for better cost and manpower efficiency, as well as disaster recovery blueprint are in the pipeline to provide the necessary impetus to propel CCN in becoming a benchmark of excellence in the 21st Century.

**F5 Networks**  
**Asia-Pacific**  
**6 Battery Road**  
**#26-04/ 05**  
**Singapore 049909**  
 +65-6533-6103 Voice  
 +65-6533-6103 Fax  
[asia.f5.com](http://asia.f5.com)  
[info.asia@f5.com](mailto:info.asia@f5.com)

**Australia**  
 F5 Networks, Sydney  
 +61 (2) 9800 9766 Voice  
 +61 (2) 9800 9866 Fax

F5 Networks, Melbourne  
 +61 (3) 9865 7576 Voice  
 +61 (3) 9685 7574 Fax

**China**  
 F5 Networks, Beijing  
 +86 (10) 6505 2375-7 Voice  
 +86 (10) 6505 2287 Fax

F5 Networks, Guangzhou  
 +86 (20) 8388 4169 Voice  
 +86 (20) 8388 3897 Fax

F5 Networks, Shanghai  
 +86 (21) 6288 0034 Voice  
 Ext 8168  
 +86 (21) 6288 0042 Fax

**Hong Kong**  
 F5 Networks, Hong Kong  
 +852 2827 1818 Voice  
 +852 2827 4000 Fax

**India**  
 F5 Networks, Mumbai  
 +91 (22) 6703 2167/8 Voice  
 +91 (22) 6703 2169 Fax

**Korea**  
 F5 Networks, Seoul  
 +82 (2)6001 3360 Voice  
 +82 (2) 6001 3363 Fax

**Malaysia**  
 F5 Networks, Kuala Lumpur  
 +60 (3) 6203 3048 Voice  
 +60 (3) 6203 3148 Fax

**New Zealand**  
 F5 Networks, Auckland  
 +64 (9) 357 5085 Voice  
 +64 (9) 358 7340 Fax

**Singapore**  
 F5 Networks, Singapore  
 +(65) 6533 6103 Voice  
 +(65) 6533 6106 Fax

**Taiwan**  
 F5 Networks, Taipei  
 +886 (2) 6703 2169 Voice  
 +886 (2) 8712 6960Fax

**Thailand**  
 F5 Networks, Bangkok  
 +66 (2) 642 7033-4 Voice  
 +66 (2) 642 7036 Fax