



Presenting Cisco's unified fabric architecture based UCS and Nexus  
Providing cost-effective, easy to maintain cloud service for small and medium sized business

## Customized service provision via a scalable cloud infrastructure

DUZON Bizon, which leads DUZON IT Group's cloud business, has the goal to become an enterprise cloud service provider. As its first step, DUZON Bizon is offering iPLUS, the company's information solution, as a virtualization based cloud service. The Smart TaxOS released last year and Smart BizOS launched in April are showcase services, recognized as ideal for accounting firms and small and medium sized enterprises.

"Smart TaxOS is an accounting firm software service and Smart BizOS provides a critical business-use system including ERP and Groupware. This is an essential service for small and medium sized businesses with minimal IT managers", said Song Hocheol, DUZON Bizon convergence strategy planning department head.

DUZON IT Group (CEO Kim Youngwoo, [www.duzon.co.kr](http://www.duzon.co.kr)) is a tax/accounting software company, established as DUZON Soft Com in 1991. The company has marked high growth every year since then. In early 2000, it expanded into the enterprise software, offering a range of solutions including ERP, IFRS, information security, e-fax, e-banking, QR codes and mobile solutions. In 2011, the company moved its head office to Gangchon, Gangwon Province and established an IDC (Internet Data Center). With the D-Cloud project, a cloud service, DUZON is preparing for the next step.

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### **Emphasis on agility, maintainability and cost-effectiveness**

The service is Korea's first SaaS (Software as a Service) for enterprise. Currently, most cloud services in Korea are IaaS (Infrastructure as Service) while SaaS is more like ASP or limited in terms of available functionality. Thus, there are not much precedent to follow in developing IT infrastructure for enterprise SaaS or estimating data center management, service product development and charging systems.

There are many things to consider when developing cloud service infrastructure. Service users and nature should be carefully scrutinized when deciding on how many virtual machines to run on one server. Some providers charge for software licensing per CPU and others on virtual machine or active user proportion. A considerable difference in cost can exist depending on the design thus the design should be based on detailed calculations, otherwise, excess operational expenses can be incurred, lowering the cloud service profitability. It is also difficult to estimate numbers of users. A cloud service must be able to create and discard virtual machines as the occasion demands, but the acceptable number of virtual machines per server can vary depending on the nature of the business or the number of jobs. It is thus important to create an environment where an accurate estimation of user numbers can be generated to automatically assign resources.

In a cloud environment, maintenance complexity increases as does the points of failure. The importance of maintenance should, therefore, be strengthened. In order to resolve this problem, a technique, to automatically maintain of the entirety of the cloud infrastructure is required.

DUZON Bizon carried out a POC (Proof of Concept) test on several vendor products to find a solution satisfying this demand and selected Cisco's x86 "UCS" server and the data center network switch "Nexus". Cisco implemented application virtualization using FlexPod, a combination of USC (Unified Computing System) Net App storage system, and vSphere, a virtualization solution for VMware.

### **Improved IT efficiency by offering the service to the group's subsidiaries**

DUZON Bizon examined various package solutions having the same concept as FlexPod when it selected

its solution, but most did not have integrate platforms, had too many points of maintenance and had relatively high adoption costs.

Cisco however, supported a range of network environments on a single platform with its Unified Fabric Architecture and satisfied the agility, scalability and cost-effectiveness required for DUZON Bizon. Unified Fabric Architecture is based on FCoE technology, which allows the use of FC over Ethernet, is recognized as the most ideal for a cloud environment, permitting access from various networks. When performing tasks requiring both SAN and NAS, FlexPod automatically converts between them using Net App's unified Cisco UCS optimized storage, such that separate SAN and NAS infrastructure are not required. This results in low infrastructure adoption costs, better maintainability and significant operational cost reductions.

"In packages proposed by other vendors, there were too many points of maintenance, as each component was separate, and they were not easy to operate. With FlexPod, however, the entire infrastructure was built on a single platform for easier maintenance as we can manage and monitor the server from a remote location without having to go to the data center to check the server", said department head Song Hocheol.

Thanks to this FlexPod feature, it is of considerable help to DUZON in providing a cloud computing service and in operating each IT subsidiary. In the past, actual equipment needed to be purchased and distributed when developing a system or conducting a test, taking considerable time and requiring a complicated decision-making process. With FlexPod, it is easy to create virtual machines and assign resources. FlexPod relieves managers of manual-work as it automatically selects the required infrastructure suited to the content.

Recently, one DUZON subsidiary sought additional backup storage, and by simply assigning virtual storage, the effectiveness of the cloud was proven. Before introducing virtualization, it took considerable time to order and receive the required storage. In the course of providing a cloud service to an outside client, FlexPod's scalability and agility offer superior results. Even if the number of clients suddenly increases, the service remains stable, as the required infrastructure can be easily assigned virtually.

## INTERVIEW



## “We are set to become Korea’s top cloud service provider”

### Q. Smart TaxOS and Smart BizOS

Smart TaxOS is DUZON Bizon’s first cloud service for enterprise, and was developed for accounting firms to satisfy their demand when they are swamped with work during key periods, as it permits employees to work at home, from remote locations, and to recruit freelancers without limit.

Smart BizOS provides a system for business use that includes ERP and Groupware as services and permits small and medium sized businesses and organizations lacking in IT managers to focus on their core business while safely and cost-effectively implementing IT.

### Q. What factors did you consider most important in building the infrastructure for this service?

We focused on creating an environment which assures stability and improves cost-effectiveness, based on the application of virtualization technology. Although cloud services have higher profits when operated on a large scale, we needed to gradually expand on demand as the service is in its early stage. We also needed to carefully examine the software licensing issue. As the license fees vary greatly depending on number virtual machine on one server, it was important to find a way to reduce costs while maintaining stable service.

### Q. Why choose Cisco UCS server and Nexus switch?

Cisco can simply and easily build and operate a cloud service, as it can build infrastructure on a single platform via Unified Fabric Architecture, regardless of network environment. Cloud package products from other vendors underwent POC testing and their products provided a different management environment for each component with complicated configurations and lower operational efficiency.

### Q. System effectiveness

DUZON Bizon’s cloud computing system is not just for outside client service, but also for operating subsidiary IT infrastructure. After implementing cloud computing, the system’s flexibility, scalability, and operational efficiency were significantly improved. For instance, one subsidiary recently asked for backup storage and management provided this by simply creating and assigning a virtual machine. Prior to implementation of a cloud service, it would have taken considerable time and effort to order, receive, and install the storage equipment. The cloud works better for service provided to outside clients, and remains stable even if the number of clients suddenly increases or decreases as the company can assign different virtual machines to different clients.



Song Hocheol  
DUZON Bizon convergence strategy  
planning department head

### Q. Future plan

DUZON is a platform connecting business to a range of cloud services. DUZON is particularly confident in its knowledge of small and medium sized business needs, as it has maintained partner relationships with small and medium sized business clients. DUZON is set to become Korea’s core cloud service provider through stable cloud service provision, improving the business competitiveness of its clients.

### Q. What is your advice to our readers?

One misunderstanding experienced by cloud service providers is that small and medium sized businesses lack an understanding of the cloud and of IT. A service satisfying clients can only be provided by thoroughly examining the client’s IT and needs.

### “SMB uses the cloud to focus on its core business”

DUZON Bizon has gained over 100 clients as of March by launching its Smart TaxOS, and is confident of attracting over 6,000 clients in the coming year. Recently, one public program showed a citizen working at home using this service. DUZON Bizon cites this as evidence of a favorable client review. The company anticipated that its Smart BizOS, scheduled for releases in April, will be widely accepted as well, as it reflects client needs.

“One misunderstanding experienced by cloud service providers, is that small and medium sized businesses lack an understanding of the cloud and of IT. These

businesses have a higher demand for specialized IT services, as they lack systematic IT organization. If they fully understood the effects of the cloud, they would select a cloud service to focus on their core business”, said Song Hocheol.

“When creating a private or public cloud environment, maintainability and cost-effectiveness should be considered. The cloud has better cost-effectiveness when operated on a large scale, but as the number of virtual machine increases, maintenance becomes more difficult. It is thus important to implement an automated maintenance/operating environment”, he added. 