

# Gamers' Mecca

*Dealing with Giants, Demons—and Runaway Growth*

“After the long and gruesome war between God, Humans, and Demons...” Thus begins the “Story of Ragnarok,” an introduction to the hugely popular sword-and-sorcerer video game Ragnarok Online from Gravity Co., Ltd., headquartered in Seoul, South Korea. Based on Norse mythology’s legend of an apocalyptic battle, Ragnarok has proved immensely popular with millions of players in 22 nations spread across six continents. Buoyed by its success, Gravity continues to launch new game titles, including Time N Tales, Requiem, Puccaracing, and Emil Chronicles.

All of this has meant enormously rapid growth for the company that has proclaimed its intention to become the Hollywood of the gaming industry. “Three years ago, when I joined the company, the total number of people here was 450,” says Kyu Hyeong Lee, CIO at Gravity. “Now there are 600.” Many of these are coders brought in to help with game development, he adds, which of course will likely lead to even more growth.

Not only that, the company, which traditionally had published its games abroad through partnerships with local vendors has opened several of its own branches abroad beginning in 2004, first in Los Angeles, to serve more than 3.5 million U.S. Ragnarok players, then in Moscow, to serve Russia, and finally Paris, to serve the whole Western European market. And as if that weren’t enough, the company is currently completing its new branch in Dubai, which will serve all of the Middle East.

This is the kind of runaway growth that can easily overwhelm an IT department, especially since the company’s product is sold over the Internet. “We’ve had record growth for the past five years,” says Lee. “We actually didn’t know ourselves how fast we could grow.” But, with Symantec’s help, Gravity’s IT staff is

By Minda Zetlin



Kyu Hyeong Lee, CIO, Gravity Co. Ltd.

managing to stay on top of a rapidly changing IT environment.

One big step forward came in 2003, when Gravity installed Veritas NetBackup to increase the speed and reliability of its backups. “In our old system, IT personnel had to manually transfer the data from each server to tape in a long, slow process,” says Soojin Jung, manager, System Administration Department. “We had to dedicate three employees for backup and recovery, taking them away from other projects. The whole process was unacceptably costly and risky. With NetBackup, it now takes just one employee an hour or less to backup our data.”

Recovering data from backup is quicker as well. Restoring a server after failure used to mean

manually reinstalling the operating system and configuring hardware, a process that took four to six hours. With NetBackup Bare Metal Restore option, the process only takes one hour. Gravity's IT staff were grateful for the speed when, in October 2006, a server containing four months of customer data failed.

cumbersome process, so Gravity next added Veritas Provisioning Manager to speed server provisioning. That allowed IT staff to provision servers five times faster than they could in the past, Soojin reports. "The same employee who could once install 10 operating systems in a single day can now do 50."

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—Kyu Hyeong Lee, CIO, Gravity

"Fortunately, we had performed our backup just hours before the server failed, so no data was lost and there was no disruption to our customers," Soojin reports.

### More gamers = more servers

Another technical challenge for Gravity has been the constantly growing need for deploying new servers and reprovisioning existing ones. Because its games are offered over the Internet, a growing number of players engender parallel growth in the server power needed to host games for them, and store the user data they upload as part of their accounts. "In 2005 we had around 400 servers," Lee says. "Now, we have 500. Our company launched several new games this year, and that created a need for more servers to provide a stronger network for the growing number of users."

Meanwhile, constant upgrades to software and the launch of new games means Gravity needs to constantly reprovision its existing servers—as many as 40 per month. This was a slow and

### IPO = compliance

More big changes for the IT department came as a result of Gravity's initial public offering on NASDAQ, in February, 2005. Accommodating the needs of a newly public company meant making some huge changes and upgrades to the way Gravity handled IT. "Before the IPO, we were living in a prehistoric period," Lee jokes. "Now, we are living in a historic period."

The challenge was to set up an IT structure that would make Gravity compliant with the thicket of regulations that govern publicly traded companies in the United States. "The IPO required lots of regulatory compliance," Lee explains. "Because of that, we had to set up a new system with groupware to manage the company's finance and accounting systems, which IT had to manage as well."

Securities and Exchange Commission (SEC) compliance also meant saving data, including email, much longer than was ever needed before.

"We needed to store email and user data for four years," Lee says. "We needed a system to do that." With NetBackup already in place to handle all-important backups, Gravity added Symantec Enterprise Vault for email archiving and e-discovery.

### Bigger company = bigger target

With its IPO and constant international expansion, Gravity finds itself increasingly on the radar of hackers and other wrongdoers who present a whole new level of security risk. Gravity is defending itself by writing patches for the software to close vulnerabilities in the code. And it is turning to Symantec to strengthen its security further. "Our programmers worked on the source code, and we brought in Symantec to protect us from physical and technical attacks on our frontlines."

On that note, Lee reports the number of hacker attacks is beginning to decrease, in part because the company takes a very strong stance against hackers and goes after them whenever possible, coupled with an enterprise-wide deployment of Symantec AntiVirus that took place as a result of its IPO.

But Gravity isn't done with security. Lee explains, "We want even more protection for our networks and our IP and will continue to evolve our IT infrastructure accordingly." ■

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