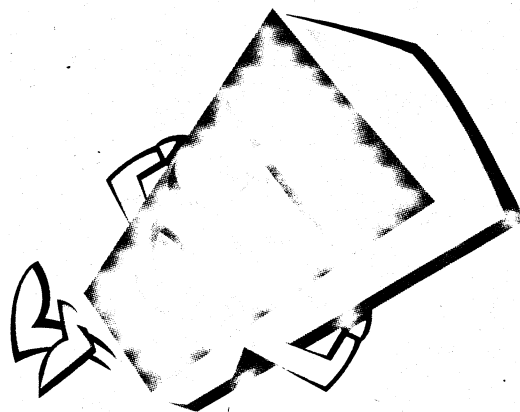


# It ain't gonna crash



By Oo Gin Lee

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**W**HEN NTU's e-learning system was down, students could not revise for a test.

Associate Professor Daniel Tan, director at Nanyang Technology University's (NTU) Centre for Educational Development (CED), never forgot the experience.

He said: "When e-mail goes down, you can go for a coffee-break and come back later to check the mail. But with e-learning, you can't do that. Students need it always to access their course materials.

"That was in the early days of our e-learning system. But the incident taught us that we need to ensure the system was robust and secure."

NTU's e-learning portal, edventure, serves 23,000 students and 3,000 staff.

Launched in 2000, the portal is a one-stop site for lecturers to post course

materials, including videos of recorded lectures for students.

Online virtual classrooms are also popular. Lectures and tutorials can be conducted live in cyberspace, complete with web-conferencing, virtual whiteboards and other features that enable collaboration and discussion.

Students can also submit assignments and check their exam grades via the portal.

## INTERNAL SECURITY

Campus-wide, NTU is protected by a powerful firewall that protects its IT systems against external threats.

But the bigger threat, according to Prof Tan, would come from an insider.

There are two main threats — viruses that have been attached, deliberately or inadvertently, to the assignments students submit online, as well as from students attempting to

hack into the grades book.

Both are internal

threats which the

main firewall, which looks

at external attacks, would not be able to block.

That is why Prof Tan employs a separate IT security system that is among the best in the market.

Using high-end Fortinet integrated security appliance, the portal is protected against a multitude of security threats.

The twin Fortigate 3600 boxes enable anti-virus protection and firewalls to block internal hackers and intrusion detection stops malicious attacks.

## EXTRA PROTECTION

The CED also engages local security vendor e-Cop to monitor its IT systems round-the-clock to defend against known, as well as unknown, viruses and threats.

"Anti-virus software alone is not good enough these days. We needed a more comprehensive and integrated security system," said Prof Tan.

"The systems have helped to block and neutralise a number of virus outbreaks before they hit our eLearning network. When the Zotob virus hit computers worldwide, our servers remained unscathed — that was pretty impressive."