



(From left) NUS provost Tan Eng Chye, Permanent Secretary for Communications and Information Gabriel Lim and National Cybersecurity R&D Laboratory governing board chairman Quek Gim Pew at the launch yesterday. ST PHOTO: SEAH KWANG PENG

# New lab makes it easier to test cyber-security solutions

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Creating an environment to test cyber-security solutions is a time-consuming process, but that will soon be a thing of the past with the launch of the National Cybersecurity R&D Laboratory (NCL) at the National University of Singapore (NUS) yesterday.

Housed at NUS' School of Computing, the NCL is a shared platform with a collection of malware and simulated digital environments, such as large-scale cyber attacks, that researchers can access.

Without the NCL, researchers would have to individually create these digital scenarios to test their solutions to cyberthreats, and this would be costly and challenging.

One beneficiary is the TSUNAMI project, which aims to build trustworthy computer systems from off-the-shelf software components, which are typically more prone to digital attacks.

"Without the NCL, security testing would have taken up to a year. Now it takes less than a week," said Dr Abhik Roychoudhury, principal investigator of the project, which began in 2015.

Twenty other teams are using the NCL's shared infrastructure, which cost \$8.4 million and was funded by the National Cybersecurity R&D Programme under the National Research Foundation, which aims to foster research and development (R&D) expertise in cyber security.

Among the areas for research are distributed denial of service at-

tacks, which direct infected devices to a targeted site, causing a huge spike in traffic. Such an attack caused a broadband disruption for local telco StarHub last October.

Besides the launch of NCL, NUS yesterday held the second Singapore Cyber Security R&D Conference, themed Systems Approach to Cyber Security.

Participants will discuss methods to create computer systems that are resilient against cyber attacks, which have become increasingly common.

Expressing his optimism, NUS provost Tan Eng Chye said: "These innovations will further strengthen Singapore's resilience as a smart and cyber-secure nation."

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