# Tsukuba University

Well known in Japan as the first open campus, the Medical School Group at Tsukuba University has faced problems with theft and needed to keep records of who was entering buildings and when. As a solution, they chose to install Paxton Access' Net2 and add to the installation every year. We asked Professor Naoto Terui, the person in charge of installations at the school, and Ms. Adachi, who manages the use of the system, to tell us about their experience with Net2.

The Tsukuba University Medical School Group is located on one corner of the Tsukuba campus, in the center of the 2,700 hectare Tsukuba City Research Park. The Medical School Group is composed of three separate fields: Medicine, Nursing and Pharmaceuticals. About 1,900 people (including the students, doctors and other staff,) are using the eight buildings belonging to the Medical School Group.

At the open campus, there are no walls or gates. Beyond that, buildings were always being added that had no real plans for an overall security system. Anybody could come into the campus at any time. From a security perspective, there were a lot of things that were being over-looked. There were some real problems with PC theft, and in 2002 an intruder entered one of the research rooms and set it on fire. The whole room was burnt badly and all of the equipment inside was damaged beyond repair. At that time, there were some security cameras in place, but they didn't catch enough evidence to do any good. The university decided that they really needed a more advanced strategy for our security system. The problem was the budget. At Tsukuba University, each department has their own budget to take care of everything. The university doesn't provide extra temporary funding for any projects, including security. Funds for the Medical School Group were quite limited. However, a security system was needed. With the limited budget, they couldn't install a complete system right away but were able to think about the first two or three places where something could be installed to see how it worked. After that, the only option was to keep adding security to a couple of new locations each year.

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The job was left to Professor Terui who decided to install security on the doors as their strategy. Professor Terui looked up some access control systems online and picked some of the best looking products from a couple of companies.

Professor Terui said: "When we were deciding, most of the door security systems were from huge security companies and were very involved. Most of them were priced at tens of millions of yen. With Net2, we could just install how many units we wanted to and then add later. Plus, it matched our price requirements. With Net2 you only have to change the locks, so we were able to use the doors that we already had. For us, this was a real point. There was no waste and this helped us to keep the costs down."

The university was happy they could use their existing student cards with the Net2 system. Student ID cards could be used for authentication just as they were which saved money as they didn't have to pay anything for the existing 1,300 cards for the students.

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The university now has Net2 installed on 19 doors, seven classrooms, and six labs for a total of 32 locations.

Now, 1,900 users are using IC cards or IC patches. When they want to enter a room, they just put their card or patch up to the card reader and it unlocks the door. The IC patch is particularly nice as it is the size of a coin and everyone just keeps it in their wallets or coin purses.

The Medical School Group has a LAN for internet use, but the Net2 system doesn't use it. For Net2, they have dedicated cables and an independent network. This way, Net2 works perfectly even if there are problems with the network. The system is operated from a dedicated server in the Medical Information Center 24 hours a day. The management software is also installed on another computer in the guard room, used for monitoring.

An alarm sounds in the security room when a card is improperly used and the guard goes to check the situation immediately. This also means the problem of improper usage of an access card can be properly fixed as soon as possible.

Professor Terui says that they have had to carefully decide where to install the Net2 system.

He said: "If someone from outside the school tampers with our experimentation equipment in the labs, it could lead to big trouble for us. For those kinds of rooms, security is really important. In the past, we even had some professor who had their own security systems in the rooms, but they were difficult to manage and when the graduate students who had been managing the system graduated, there was no one left to do the job. Now we have installed Net2 on most of those rooms as well."

Professor Terui has granted everyone who has a card access to the entry/exit doors in the school. For the classroom and laboratory doors, access rights have only been granted to those who should be using the rooms. Unlike general business, every individual at the university has different places that they need to access. It's fairly complicated, but that's the reality of setting up a security system for a university.

## "This system has really been so convenient for us, that the Animal Resources Center next to the Medical School Group also wanted to use Net2"

Professor Terui said: "When students come for entrance exams, we open up all of the doors for the exam time only. When there is some maintenance in the building, we lock up all of the doors. Those kinds of temporary changes to settings are quite easy to do with Net2. It is also really easy to add new cards, so if we have students from another department or professor from another school coming to visit, we just give out new cards that grant them access rights to the areas that they will have to use."

Year by year new updates for the management software are released. It is getting easier and easier for the staff to operate the system. The Net2 network doesn't have a central location that all of the doors have to connect to; rather, they are connected like a string of pearls to one another. This is what they call "cascading the doors". In this way, it is much easier to install the system on new doors because you can just link the new door to the closest door that already has the system. This is another way to effectively keep down construction and set-up costs, and another reason for Tsukuba University choosing Net2.

Ms Adachi said: "This system has really been so convenient for us, that the Animal Resources Center next to the Medical School Group also wanted to use Net2 and just finished installing it a couple of days ago. The Animal Resources Center raises and takes care of the animals used in experiments for the whole university, so many of the Medical School Group's student research goes on there. The management of their center and their Net2 system are completely separate from us, but as far as access rights go, students and researchers who need access to both the Medical School Group and the Animal Resources Center only need one access card. They don't always need to walk around with two cards. It's really convenient."

The Tsukuba University Medical School Group plan to install Net2 on more and more doors to make the best security system possible. They are also considering installing the IP camera system, XProtect™ by Milestone, and integrating this with Net2.