

# Security: It's a "People" Thing

*"Perfect security and perfect information sharing are, by definition, mutually incompatible. Our technology encourages users to care about information security and helps foster a compliant culture in the workplace. The only way to achieve this is through simplicity and ease-of-use."*

## The Security Trap

In this age of networking and IT, information security is on everyone's mind. Of course everyone wants it, but are we not being deceived? Is it really necessary? Kiyoshi Sakai, Director of the R&D Group at Ricoh, shared his thoughts on the natural paradox security presents when providing real-world solutions business.

Clearly, information security is an important means of preventing fraud, theft and other crimes resulting from leakage of personal data. However, shift to the business world, and efficient communication of information becomes very important because information is both a commodity and a raw material. The faster and wider it spreads, the greater the benefits; anything that slows down the information flow will be seen as undesirable, as it is damaging to a business.

Then why the push for security? "Security is necessary primarily because of competition. Information must be protected to ensure that we have and maintain the upper hand on our competitors," states Sakai. This, however, presents a conundrum — that is, the better the flow of information, the better for business, but also the greater the risk of competitive disadvantages due to information leakage. "The best security system is one that gives everyone access to information. This is our guiding principle when developing the optimal security system."

## People are Key

As an IT company, Ricoh is not immune to the hubris common to that sector, namely that "technology will provide all the answers." Still, Sakai and his team know that technology is not the answer to information security. "Again, we stress that without people, nothing can be achieved. Technology itself is not capable of defining what does or does not make information important or confidential. This is a task for humans."

"Unfortunately," he adds, "the most common form of information leakage at a

firm is usually perpetrated by a few insiders or those with stolen identities." The Ricoh approach to information security is to let those "perpetrators" know that leaking information is not going to be easy. The information security mechanism, in and of itself, is a deterrent to illegal copying and theft of information. However, in cases where technology is not enough, "human eyes" must be added to the equation. Ricoh aims to create products and structures that "encourage people to feel the need to implement their own information security and not create a false sense of security that depend entirely on machines."

## "COPY REQUEST DENIED!" MFPs at the Forefront of Security

In line with this approach, Ricoh recently introduced a unique feature in its multi-function printers (MFPs) that simply prevents documents from being copied. Traditionally, highly confidential documents were secured by being locked in a cabinet or safe. In the networked society, however, where theft or duplication of electronic data is only a few mouse-clicks away, this practice has become obsolete.

"All IT firms are desperately trying to prevent information from leaking by positioning their products on networks," shares Sakai. "In the case of MFPs, there is an inherent risk that the original electronic data being printed will be purposefully stolen or duplicated. We have countered this possibility by inventing a mechanism on our copiers and printers that prevents documents from being copied." When documents are printed on a Ricoh MFP that has this technology, "patterns" are printed onto the background of the pages. Any attempt to copy these printouts on the MFP will fail because it detects these "patterns" and prints out a blank gray sheet instead. Even if the "perpetrator" attempts to copy these pages onto machines lacking this "copy guard" technology, the printed pages will have the words, "Do Not Copy" or "Copying Prohibited" printed across the page.



Kiyoshi Sakai, Director of the R&D Group

## The Road Ahead

Ricoh's technologies are backed by their expertise in optical character recognition (OCR) and image processing. "We have revisited this idea and this new recognition has led to a variety of information security technologies." The idea is simply to "process" security when the information passes through copiers, printers and such when entering the network, and again when exiting the network.

"Our intent is to formulate security solutions that make security a part of our daily life." Sakai believes users of Ricoh's products should be able to easily understand and implement security stratagems without having to be an expert. Most of the security arrangements currently on offer by IT firms involve cumbersome processes that hinder the smooth flow of information. "This is hardly acceptable," notes Sakai, and adds, "The optimal approach consists of an exquisite balance between perfect security and perfect information sharing. Technology alone, whatever you may have been led to believe, is inadequate. Again, security is not just about machines, it is very much a human process — convincing people that they are a key factor in preventing illegal duplication and theft of information."

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