National Institute of Information and Communications Technology

Tweet

Memorandum of Understanding on Research Cooperation Signed with Institut National de Recherche en Informatique et en Automatique (INRIA), France

December 17, 2014

The National Institute of Information and Communications Technology (NICT), Japan, and Institut National de Recherche en Informatique et en Automatique (INRIA; CEO: Antoine Petit), France, concluded a memorandum of understanding on research cooperation, specifying a research cooperation framework in the ICT field, particularly cybersecurity and new-generation networks, at the NICT Headquarters (Tokyo) on Thursday, November 20, 2014.

NICT and INRIA share common interests in technologies related to cybersecurity and new-generation networks. In the cybersecurity field, in particular, the institutes will share information on cyber-attacks and cooperate toward improving information analysis and analysis techniques in order to conduct research on measures against cyber-attacks. In the new-generation networks field, the institutes will conduct research and development on information-centric network technologies (ICN/CCN), which are new-generation network technologies, and other network technologies, and next-generation simulators and testbeds for evaluating

Left: Dr. Antoine Petit (CEO of INRIA),

network technologies. Collaborations in these two fields are expected to raise the research levels and accelerate research activities at both NICT and INRIA.

Right: Dr. Masao Sakauchi (President of NICT)

In addition to these two fields of collaboration, INRIA also engages in a broad range of research in the field of computer science. Thus, in the future, NICT and INRIA plan to deepen their research cooperation effectively by exchanging information and researchers, conducting joint research and holding study meetings, while searching for other common themes on which they can collaborate, based on the conclusion of this memorandum of understanding on research cooperation.

Glossary

INRIA (Institut National de Recherche en Informatique et en Automatique)

The French Institute for Research in Computer Science and Automation.

It is the sole national research institute in France to specialize in computer science. It was established in 1967 under the Ministry for the Economy and Finance and the Ministry of National Education, Higher Education and Research of France. Its research fields are extensive, including networks, automatic control and image processing. As of FY2013, it had 4,471 staff members (including 3,449 scientists) and a budget of €233 million (36% being INRIA's equity capital).

Research on measures against cyber-attacks

NICT conducts research and development of technologies for monitoring, analyzing and visualizing cyber-attacks. It studies and develops such systems as NICTER (Network Incident analysis Center for Tactical Emergency Response), which is a composite system for promptly detecting various security threats that occur on the Internet and deriving effective measures, and DAEDALUS (Direct Alert Environment for Darknet And Livenet Unified Security), which is a system for sending alerts about any malware infections within an internal network and external attacks.
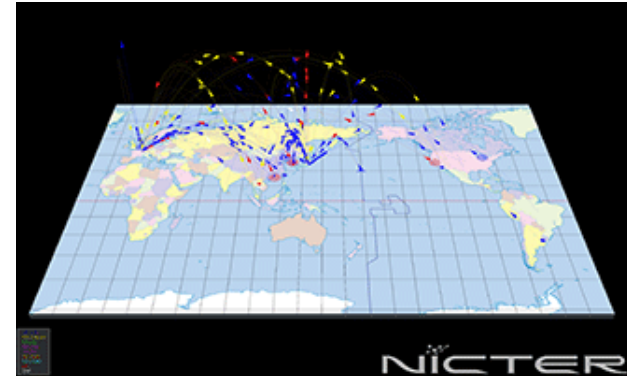
Figure 1 Cyber-attacks against Japan and France detected by NICTER
[Click picture to enlarge]

Research and development on information-centric network technologies (ICN/CCN)

NICT conducts research and development in the field of information-centric network technologies (ICN/CCN), which are new network technologies. In an information-centric network, a user acquires information from the network by using a content name as an identifier. This makes it possible to acquire information more expeditiously and efficiently than by using the currently diffused IP address-based communication.

Figure 2 IP address-based communication and information-centric network
[Click picture to enlarge]

Since information-centric network technologies are expected to contribute towards not only increasing convenience for users but also improving communication efficiency and saving energy through effective utilization of networks and server resources, NICT is pushing forward research and development aimed at practical application of these technologies.
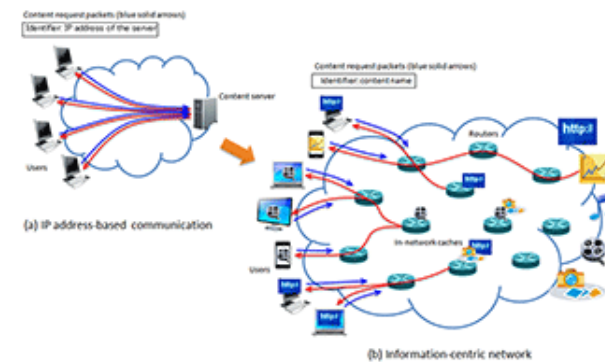
Contact

Yasuhiro Koyama, Yuki Kageyama
International Cooperation Office

International Affairs Department

NICT

E-mail: int_rel@ml.nict.go.jp