

NEWS RELEASE



Internet Groups Inaugurate Cyber Security Facility in Singapore

New service will protect many countries' Internet domains against cybercrime

Singapore, 22 June 2011 – Prominent Internet organizations today inaugurated the first of three hardened facilities that will bring an extra measure of security for Internet users around the globe.

Packet Clearing House (PCH) and the Internet Corporation for Assigned Names and Numbers (ICANN) were joined by the Infocomm Development Authority of Singapore (IDA) and the National University of Singapore (NUS) in making today's announcement, saying the new facility will provide secure digital signatures for the country-code top level domains of dozens of countries.

The three new facilities, located in Singapore; Zurich, Switzerland (still under construction) and San Jose, California, provide cryptographic security using the recently deployed Domain Name System Security (DNSSEC) protocol. Internet users in each country that adopts the new service will be assured of the authenticity of the websites they visit and the email addresses they use.

Since its standardization by the Internet Engineering Task Force (IETF), the DNSSEC protocol has been adopted by many top-level domains (TLDs) to form a secure chain of trust within the Internet's domain name system.

So far this year, several major TLDs, including .de, the German country-code top-level domain, as well as .com and .net have already secured their own domains by generating cryptographic keys, which are used in the DNSSEC system to electronically "sign" the domains, authenticating them to the Internet users who access the web sites, email, and other Internet resources the signed domains contain.

Although people browsing the Internet often take it for granted that the sites they visit are created and operated by their purported owners, it is possible for criminals with knowledge of the Internet's addressing system to create counterfeit websites that look like the real thing but capture users' private information. DNSSEC guards against this cyber threat.

PCH's DNSSEC facilities will allow many additional countries to immediately gain the benefits of DNSSEC protection for their country code TLDs without needing to build and maintain their own million-dollar security facilities. During a "key-signing" ceremony on Monday, cryptographic master keys were created for Tanzania, Uganda, Afghanistan, and ten other countries that have already chosen to use the system.

The new signing facilities are part of a comprehensive drive to adopt the DNSSEC protocol, spearheaded by ICANN with its signing of the root of the domain name system last June, that is increasing the Internet's security worldwide.

"One of ICANN's core missions is to enhance the security and stability of the Internet's Domain Name System. This new DNSSEC facility in Singapore helps us do just that," said Rod Beckstrom, President and Chief Executive Officer of ICANN. "The bottom line is that this center and the two others like it will give billions of Internet users the confidence to know that they have ended up at the web site they intended to reach, reducing the risk that they have been misdirected to a different site by cyber criminals."

"Businesspeople, governments, and regular Internet users have been demanding secure domain names for more than ten years, and I'm really happy to have finally built a system that delivers that, and delivers it globally, to any country that wants it, at no cost," said Packet Clearing House's research director, Bill Woodcock. "DNSSEC was an obvious next step for our global anycast DNS service network, since we already provide service to more than eighty countries."

Mr Leong Keng Thai, Deputy Chief-Executive and Director-General of Telecoms & Post, IDA, said, "We are honoured that PCH, with the support of ICANN, has decided to host the Asia node of the DNSSEC platform here in Singapore. The facility will assist other countries to secure their DNS, and its location here further affirms Singapore as a secure and trusted hub."

Director of the National University of Singapore Computer Centre Tommy Hor, said "NUS, which is the birthplace of Internet services in Singapore, is proud to be part of the trans-national, multi-agency effort behind this critical cyber infrastructure. By hosting the DNSSEC facility on campus, NUS will contribute our expertise and work closely with our partners in ensuring a better, more trustworthy and productive Internet infrastructure for users in Singapore, the region and beyond."

PCH's DNSSEC service is unique in several ways: it employs the same degree of physical, network, and procedural security as ICANN uses to sign the root of the domain name system, meeting all of the same rigorous standards; all components were selected for low power consumption and the system as a whole will be both carbon and energy-neutral upon completion; it is entirely free of cost for country-code top level domains; and its goal is as much knowledge-transfer and regional self-sufficiency as immediate implementation: all of its procedures and software follow best practices and are published open-source, using a Creative Commons license that ensures that all can benefit from them equally.

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About PCH: Packet Clearing House is a non-profit research institute that supports operations and analysis in the areas of Internet traffic exchange, routing economics, and global network development. Originally formed in 1994 to provide efficient regional and local network interconnection alternatives for the west coast of the United States, PCH has since grown to become the leading proponent of neutral, independent network interconnection and provider of route servers at major exchange points worldwide. Today, PCH provides equipment, training, data, and operational support to organizations and individual researchers seeking to improve the quality, robustness, and accessibility of the Internet. Current and ongoing PCH projects include the construction of Internet exchanges points (IXPs) throughout the developing world; operation of the INOC-DBA global Internet infrastructure protection hotline; support for globally distributed domain name system (DNS) resources; implementation of network research data collection initiatives in more than three dozen countries; and development and presentation of educational materials to foster a better understanding of Internet architectural principles and their policy implications among policy makers, technologists, and the general public. For more information, visit www.pch.net.

About ICANN: ICANN's mission is to ensure a stable, secure and unified global Internet. To reach another person on the Internet you have to type an address into your computer - a name or a number. That address has to be unique so computers know where to find each other. ICANN coordinates these unique identifiers across the world. Without that coordination we wouldn't have one global Internet. ICANN was formed in 1998. It is a not-for-profit public-benefit corporation with participants from all over the world dedicated to keeping the Internet secure, stable and interoperable. It promotes competition and develops policy on the Internet's unique identifiers. ICANN doesn't control content on the Internet. It cannot stop spam and it doesn't deal with access to the Internet. But through its coordination role of the Internet's naming system, it does have an important impact on the expansion and evolution of the Internet. For more information please visit: www.icann.org.

About IDA: About Infocomm Development Authority of Singapore: The Infocomm Development Authority of Singapore (IDA) is committed to growing Singapore into a dynamic global infocomm hub. IDA uses an integrated approach to developing infocommunications in Singapore. This involves nurturing a competitive telecoms market as well as a conducive business environment with programmes and schemes for both local and international companies. For more news and information, visit www.ida.gov.sg

About NUS: A leading global university centered in Asia, the National University of Singapore (NUS) is Singapore's flagship university which offers a global approach to education and research, with a focus on Asian perspectives and expertise. NUS has 15 faculties and schools across three campuses. Its transformative education includes a broad-based curriculum underscored by multi-disciplinary courses and cross-faculty enrichment. Over 36,000 students from 100 countries enrich the community with their diverse social and cultural perspectives. NUS has three Research Centres of Excellence (RCE) and 22 university-level research institutes and centres. It is also a partner in Singapore's 5th RCE. NUS shares a close affiliation with 16 national-level research institutes and centres. Research activities are strategic and robust, and NUS is well-known for its research strengths in engineering, life sciences and biomedicine, social sciences and natural sciences. It also strives to create a supportive and innovative environment to promote creative enterprise within its community. For more information, please visit www.nus.edu.sg.

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