Executive Summary

The Internet is a social infrastructure that supports various aspects of our daily lives. Because many information services use the Internet today, it has become a really indispensable lifeline for our information-based society. Because of our high dependency on the Internet, social happenings have started to make significant effects on its behavior.

For example, in January 2010 broadband traffic volume in Japan decreased by almost 20%. This was the first long-term drop in traffic of this magnitude since the commercialization of the Internet. It is said that the root cause was the amended Copyright Act that also came into effect in January, making the download of copyright infringing content illegal. By analyzing traffic trends based on this hypothesis, we can gain a deeper understanding of the details of what actually occurred on the network. Likewise, from a security point of view it is also essential to understand social circumstances and historical affairs for preparing for possible incidents or analyzing what has taken place on the network.

In this way, it can be said we have entered an era where service providers such as ourselves will no longer be possible to secure the stable operation and sustainable development of the Internet without analyzing events that actually take place on our networks in light of the wide range of events faced by society as a whole.

This report discusses the results of the various ongoing surveys and analysis activities that IIJ carries out to maintain and develop the Internet infrastructure and enable our customers to continue to use it safely and securely. We also regularly present summaries of technological development as well as important technical information.

In the "Infrastructure Security" section, we report on the results of our ongoing statistics gathering and analyses for security incidents observed during the three months from April 1 to June 30, 2010. We also present our focused research for this period, including trends in the Year 2010 Issues on Cryptographic Algorithms, our observations on the backscatter caused by DDoS attacks, and trends in the circulation of vulnerability information.

In the "Messaging Technology" section, we examine spam ratio trends and regional source distribution, as well as trends in the main regional sources of spam, for the 13 weeks between April 1 and June 30, 2010. We also report on the deployment status of sender authentication technology.

In the "Broadband Traffic Report" section, in light of the changes in traffic mentioned above, we analyze the state of traffic over IIJ's broadband access services for the week starting May 24, 2010, and compare it to the results of our analysis for the previous year (detailed in IIR Vol.4) to verify what characteristics of the traffic have changed over a year.

Under "Internet Topics," we introduce the Managed Security Selection (MSS) guidelines put together by the Information Security Operation provider Group Japan (ISOG-J).

IIJ will continue to publish periodic reports covering information such as this, and provide customers with a variety of solutions for the stable, secure, and innovative use of the Internet as an infrastructure for supporting corporate activities.

Author:
Toshiya Asaba
President and CEO, IIJ Innovation Institute Inc. Mr. Asaba joined IIJ in its inaugural year of 1992, becoming involved in backbone construction, route control, and interconnectivity with domestic and foreign ISPs. Asaba was named IIJ director in 1999, and as executive vice president in charge of technical development in 2004. Mr. Asaba founded the IIJ Innovation Institute Inc. in June 2008, and became president and CEO of that organization.

IIJ Internet Initiative Japan