

## Executive Summary

The open data strategy for electronic administration, formulated by The Strategic Headquarters for the Promotion of an Advanced Information and Telecommunications Network Society (IT Strategic Headquarters), was published in July 2012. The goal of this strategy is to improve the lives of citizens and stimulate business activity by contributing to Japan's overall social and economic development. To achieve this, it advocates proactive online disclosure of the public data collected and managed by various government organizations, which is also a common asset of the Japanese people. It also aims to facilitate the creation of new public services through public-private cooperation, and aid their swift and efficient implementation.

Making a variety of public data available online means building an official data space on the Internet, including cloud services, that will serve as a foundation for a range of information services related to Japan. If the number of applications based on open data increases in the coming years, and a range of services supporting the lives of citizens eventually depend on this data, it will be essential to preserve the validity and coherence of public data, while providing stable, continuous access to it.

Open data and open government initiatives such as this are taking place in parallel around the world, and it is reasonable to assume that enhancing systems for maintaining and utilizing data in Japan will also lead to enhanced competitiveness in the global society. From this point of view, the Internet is likely to continue to grow in importance as a lifeline supporting people's everyday lives.

This report discusses the results of the various ongoing surveys and analysis activities that IJ carries out to support 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 give a month-by-month chronological summary of major incidents observed during the three months from July 1 to September 30, 2012, and report on the results of our statistics gathering and analyses for the entire period. We also present our focused research for this period, including discussion of the issue of many public keys used with SSL/TLS and SSH sharing private keys with other sites, a look at the state of smartphone security, and an explanation of the difficulty of sharing information for implementing targeted attack countermeasures.

In the "Messaging Technology" section, we present long-term trends in spam between June 2008 and September 2012, and examine spam ratio trends and trends in distribution of the main regional sources of spam for the 13 weeks between July and September, 2012. We also comment on technology trends, such as the adoption rate of the SPF and DKIM sender authentication technologies.

In the "Cloud Computing Technology" section, we look at the technical requirements for realizing the "SDN" technology that enables flexible configuration and control of virtual networks via software, as well as the future possibilities it presents. We also examine the features of the Stratosphere SDN Platform software product released at the end of October 2012 by Stratosphere Inc., a joint venture founded by IJ and ACCESS CO., LTD. in April.

Through activities such as these, IJ continues to strive towards improving and developing our services on a daily basis while maintaining the stability of the Internet. We will keep providing a variety of solutions that our customers can take full advantage of as infrastructure for their corporate activities.

Author:



**Toshiya Asaba**

President and CEO, IJ Innovation Institute Inc. President and CEO, Stratosphere Inc. Mr. Asaba joined IJ in its inaugural year of 1992, becoming involved in backbone construction, route control, and interconnectivity with domestic and foreign ISPs. He was named IJ director in 1999, and executive vice president in charge of technical development in 2004. When the IJ Innovation Institute Inc. was founded in June 2008, Mr. Asaba became its president and CEO. When Stratosphere Inc. was founded in April 2012, he also became president and CEO of that organization.