Executive Summary

My name is Yoshikazu Yamai, Director of the Service Operation Division, and from this report I will be taking over the Executive Summary from Mr. Asaba. I look forward to tackling this role.

The incident in which personal information leaked from the Japan Pension Service is still fresh in our minds. I believe this incident boosted recognition of information security within society, and further reinforced the perception that security measures are necessary for the protection of not only infrastructure, but also individuals and organizations when using the Internet. As a builder and operator of infrastructure, our aim is to provide it in the form of services, but it is clear that we are at risk of being outpaced by the threats we face. These days, my hope is that security operations involving coordination between providers and users will increase the momentum of moves to protect the Internet.

This report discusses the results of the various ongoing surveys and analysis activities that IIJ, as a service provider, carries out to support the Internet and cloud infrastructure, and enable our customers to continue to use them safely and securely. We also regularly present summaries of technological development as well as important technical information.

In Chapter 1, "Infrastructure Security," we discuss and analyze incidents occurring on the Internet, such as hacktivism-based attacks and unauthorized access related to social media. In our focused research, we examine machine learning and security, look at the Angler Exploit Kit that has been thriving lately, and shed light on the actual use of ID management technology.

In Chapter 2, "Broadband Traffic Report," we analyze the recent state of Internet traffic. We also discuss the mobile traffic that has been growing at a steady rate for the past few years, looking at traffic on IIJ's personal and enterprise mobile services, and comparing it with broadband traffic. Delving into mobile trends provides fascinating insight.

In Chapter 3, "Technology Trends," we cover big data. Concepts such as IoT and CPS have been in the limelight a lot lately, but in the world of social networking, these make up just one slice of the huge variety of data transmitted. The endless flow of tweets, and collective wisdom in social form found at Wikipedia, are also important sources of big data. This is where we showcase the research we are working on in our research lab.

It could be said that Internet infrastructure is changing from mere physical infrastructure to infrastructure that also serves as a social platform. In this report we will continue to review the situation from this broad perspective, through the lens of technology.

Through activities such as these, IIJ 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 services and solutions that our customers can take full advantage of as infrastructure for their corporate activities.

Yoshikazu Yamai
Upon joining IIJ in June 1999, Mr. Yamai was temporarily transferred to Crosswave Communications, Inc., where he was engaged in WDM and SONET network construction, wide-area LAN service planning, and data center construction, before returning to his post in June 2004.
Since then he has managed IIJ's Service Operation Division as Director.
He also heads IIJ's data center operations, and he played a key role in the establishment of the container-based "Matsue Data Center Park," which was the first in Japan to use outside-air cooling.