Concept paper

Introduction

Following the success of the initial Global Symposium on DNS Security, Stability and Resiliency (SSR) in February 2009, this second symposium is intended to follow up on the initial work and to present a series of questions that can aid the DNS community in improving the overall state of the system.

Symposium outcomes

The symposium will work along three main avenues of approach:

1. Understanding the meaning of "health" as it pertains to the DNS system and reviewing the **current state of the art** of measuring its health.

2. Identifying gaps in existing **techniques, mechanisms** and **metrics** for measuring the state of DNS system health.

3. Developing recommendations for improvements in how to monitor the system's condition.

The main objective of the symposium will be to define what we need to understand in order to assess whether the DNS system is healthy and to determine what we need to measure in order to make such an assessment.

The definitions at which we arrive, and our understanding of them, can be used by a wide variety of people involved in the DNS system, from DNS operators to researchers, to not only measure the health of their own systems, but also to refine and study these measurements over time.

The symposium can touch upon issues such as instrumentation, visualization, data sharing and other contemporary problems that the participants identify.

In addition, the conference will feature a **brainstorming session** that will allow attendees to contribute new ideas, stimulate new discussion and cover subject areas that might not have been forecast before the conference.

Location and timing

The symposium will be held during 1-3 February 2010 at Kyoto University Clock Tower Centennial Hall in Kyoto, Japan.

Co-hosts

Kyoto University
Nara Advanced Institute of Science and Technology
ICANN

Program steering committee

- Co-chairs: Hiroki Takakura (Kyoto University), Yurie Ito (ICANN)

- Academic research expertise: Suguru Yamaguchi (NAIST), Dave Dagon (Georgia Tech), Rich Caralli (Carnegie-Mellon)

- Metrics expertise: Duane Wessel (DNS-OARC), Demosthenes Ikonomou (ENISA)

- DNS operations expertise: Roy Arends, Olaf Kolkman, Ramses Martinez

- ICANN: John Crain, Greg Rattray

Actionable goals

Deliver actionable, measurable outcomes from the meeting

Identify measurements that are or should be taken relating to the security, stability and resiliency of the DNS system, taking into account the 'vertical' channels of need that vary between operators, governments, industry groups, and others that rely heavily on the DNS system

Determine how to assess these metrics' effectiveness, with an aim toward improving the quality of measurements used to determine system health

Identify the various qualitative effects that operators and researchers are taking into account when looking at the health of the DNS system

Assess and document the status of outcomes reached at the initial symposium

Identify current impediments to the collection and sharing of metrics (such as lack of automation or technical limitations) and discuss possible solutions