Experience with some Principles for Building an Internet-Scale Reliable System

Mike Afergan
CTO Akamai Technologies, Inc.
8 Cambridge Center
Cambridge, MA, 02142, USA

Abstract

We discuss the design methodology used to achieve commercial-quality reliability in the Akamai content delivery network. The network consists of 15,000+ servers in 1,100+ networks and spans 65+ countries. Despite the scale of the Akamai CDN and the unpredictable nature of the underlying Internet, we seek to build a system of extremely high reliability. We present some simple principles we use to assure high reliability, and illustrate their application. As there is some similarity-in-spirit between our implementation and recent trends in the research literature, we hope that sharing our experiences will be of value to a broad community.