



# The Computerworld Honors Program

Honoring those who use Information Technology to benefit society

## Final Copy of Case Study

**LOCATION:**  
*Cambridge, MA, US*

**ORGANIZATION:**  
U.S. Census

**YEAR:**  
*2011*

**ORGANIZATION URL:**  
<http://www.census.gov>

**STATUS:**  
*Laureate*

**PROJECT NAME:**  
2010 Census Website Gets Help from the Cloud

**CATEGORY:**  
*Business  
Responsiveness*

### PROJECT OVERVIEW

Although Census planning is a 10-year effort, the actual process happens during a very short window of time. To generate maximum awareness and participation in the survey, the Census marketing team planned a nationwide "Once-A-Decade" campaign, which launched with an 18-wheeler truck in New York City's Rockefeller Center during the live broadcast of NBC's "Today" show. The campaign also included a television commercial during the Super Bowl. The campaign's main objective was to drive traffic to the new Census website, [www.2010.census.gov](http://www.2010.census.gov), which was extremely dynamic and featured video clips, blogs and other interactive content aimed at motivating citizens to participate in the 2010 survey. In anticipation of the increased Web traffic the Census needed to ensure its infrastructure was capable of supporting high volumes of visitors to the new website. The Census was faced with an important decision---either to build out its own internal infrastructure or to leverage an outside vendor to help provide scalability for the expected traffic spikes. Additionally, the Census had security concerns in the wake of increasingly sophisticated Distributed Denial of Service (DDoS) attacks. If such an attack occurred during peak traffic it could potentially take the site down, reflecting negatively on the Bureau and possibly deterring citizens from participating in the survey. It was tough to gauge how much infrastructure would be needed to sufficiently handle the elevated Web traffic, which posed a considerable challenge from a financial resources perspective, since purchasing infrastructure for a one-time spike is expensive. To alleviate such a financial and time-consuming strain on its infrastructure, the Census leveraged a cloud-based infrastructure-as-a-service solution from Akamai Technologies. Called Web Application Accelerator (WAA), the solution is designed to ensure continuous website uptime and fast performance. Additionally, the Census leveraged Akamai's In the Cloud Security (ITC) service to mitigate the threat of DDoS attacks and ensure 100% uptime for its website. As a result of leveraging Akamai's technology, the Census website maintained continuous uptime during the height of its marketing campaign activity, which drove extraordinarily high levels of survey participation. In fact, when the agency's 2010 commercial aired during the Super Bowl, the 201



website experienced a 40X increase in traffic. Because the website was powered by Akamai it was able to deliver this traffic-- Akamai provided over 95% offload of hits to the data center. Without Akamai, the Census would have needed six dedicated OC-3 circuits, or high-speed digital lines, to handle the spikes in traffic. Akamai's technology prevented the Census from having to build out a massive infrastructure to support orders of magnitude increases in traffic on its 2010 website, which saved the organization a significant amount of time and money. Additionally, by leveraging the Cloud, the Census was able to provide a better-quality Web experience to citizens at a fraction of the resources associated with having to build an "in-house" network. Today, about 99% of the hits from the 2010 Census website never actually reach the Census servers because they are handled by Akamai's network, without the visitor ever knowing.

### **SOCIETAL BENEFITS**

This project helped ensure the accurate collection of Census data, which is used to determine decisions that greatly impact a number of critical services for the American public. Furthermore, leveraging Akamai's network cost less money than building out the Census' internal infrastructure, thus saving American taxpayers' money.

### **PROJECT BENEFIT EXAMPLE**

Akamai's cloud computing technology benefited the US Census Bureau by providing a secure and reliable platform to support the organization's marketing efforts in promoting census participation. This level of reliability and performance enabled the census marketing efforts to be successful by ensuring a high response rate.

### **IS THIS PROJECT AN INNOVATION, BEST PRACTICE?** Yes

### **ADDITIONAL PROJECT INFORMATION**

The Census was so happy with the experience of working with Akamai that they partnered with us on a video testimonial. I have tried several times to upload the video as a mov. file using the appendix section below but the online form keeps crashing and preventing me from being able to upload the video file. You can view and/or download the video, labeled U.S. Census, at the following link: <http://studionow.com/review/1aa2528670e8c/> using the login: [jyoung@akamai.com](mailto:jyoung@akamai.com) and the password: studionow.