



## AppBeat DC Delivers Performance for German Elections

[dunkel]

### Customer:

Dunkel GmbH

### Industry:

Government

### Location:

Hesse, Germany

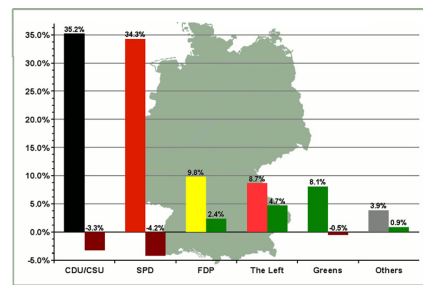
### Crescendo Networks Solution:

AppBeat™ DC

### Results:

- Improved client response time by 90%
- Increased server capacity by 700%
- Reduced bandwidth requirements by 50%

Founded in 1984, Dunkel provides a full range of IT security solutions and high performance Internet Services. The company implements secure Internet infrastructures and provides Managed Security Services for firewalls, authentication, mail and web security. Customers with mission-critical web applications benefit from the company's hosting and content delivery services with managed application acceleration and global load balancing. Dunkel's reliable and flexible services have won acclaim among customers in transport, banking and finance, media and other fields as well as the public sector.



## The Challenge

Germany's 2005 general election was an event capable of generating a level of Internet traffic far beyond normal. Each previous election had placed greater and greater demands on network resources. Handling Internet-generated traffic spikes (flash crowd events) during the event had also been a major challenge in past elections.

*"The challenge of a special event hosting project is the traffic spikes that ramp up with the first results and disappear again a day or two after the election."*

*Axel Dunkel, Founder and President*

To address this need, the State Statistical Office of Hesse (HSL) and the public broadcasting stations Hessischer Rundfunk (hr) and Suedwest Rundfunk asked Dunkel GmbH to partner with them to deliver the results of the general election in the states of Hesse and Rhineland Palatinate.

With the State Statistical Office of Hesse and public broadcasting stations watching closely, Dunkel established the online infrastructure resources needed to assure timely access to election results. "Our goal was to not only report the election results as responsively as possible – but to also deliver a new standard in on-line, real-time, application delivery," observed Dunkel.



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### The Solution

Since the number of page views grew from election to election, Dunkel initially considered scaling its servers, or adding additional servers, for the 2005 national election. While in the process of developing their technology approach and conducting research, Dunkel's team came across Crescendo Networks' AppBeat DC solution.

AppBeat DC is the industry's best performing application delivery solution, providing high availability, scalability, acceleration and optimization for web applications. Unlike competing solutions, AppBeat DC leverages the industry's only purpose-built platform, uniquely designed for maximum performance and feature concurrency. By offloading servers from process-intensive tasks and optimizing the delivery of the application to the users, AppBeat DC significantly improves the overall application performance, security and availability while reducing datacenter costs.

The election results of each single community, as well as those of electoral districts, were delivered via project-specific web applications. Immediately upon arrival from the polling stations throughout the country, the State Statistical Offices transferred the election results to a database at Dunkel. AppBeat DC handled all user connection requests in real time with no significant time delay. The web sites refreshed about once every 30 seconds and displayed new results to the visitors. In addition, statistics were calculated and delivered in real-time on information such as changes from the previous general election.

### The Results

Shortly after the election results started to come in, the election result web site addresses were broadcast on national television and the number of 'page hits' spiked to more than twenty times their normal average.

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*"AppBeat DC's results exceeded even our most optimistic expectations. We are pleased with the results of this project, which provided critical content delivery when it was most needed."*

*Axel Dunkel, Founder and President*

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Performance numbers subsequently indicated that AppBeat DC improved client response time by 90% and server capacity by 700%, while also reducing individual client bandwidth requirements by 50%. In addition, AppBeat DC provided four times the normal number of simultaneous network connections and reduced the bandwidth Dunkel previously required to deliver results at a comparable level. The solution handled flash crowd events twenty times above normal levels. Upon conclusion, the election returns indicated that 77.7% of the population, or almost 48 million people, voted in this landmark event.

### About Crescendo Networks

Crescendo Networks is the recognized performance leader for accelerating and optimizing the delivery of business-critical, web-enabled applications. The company's unique multi-tier application architecture dramatically improves the operation of today's demanding application infrastructure. The world's largest corporations and fastest growing web properties rely on Crescendo for the application performance and efficiency needed to ensure usability, facilitate rapid business growth, lower IT costs and capture additional revenue. To learn more about Crescendo Networks' application delivery solutions, visit [www.crescendonetworks.com](http://www.crescendonetworks.com).

#### International Headquarters

6 Yoni Netanyahu Street  
Or-Yehuda 60376, Israel  
Phone: +972-3-634-6120

#### US Headquarters

633 Menlo Avenue, Suite 230  
Menlo Park, CA 94025  
Phone: (866)830-0400