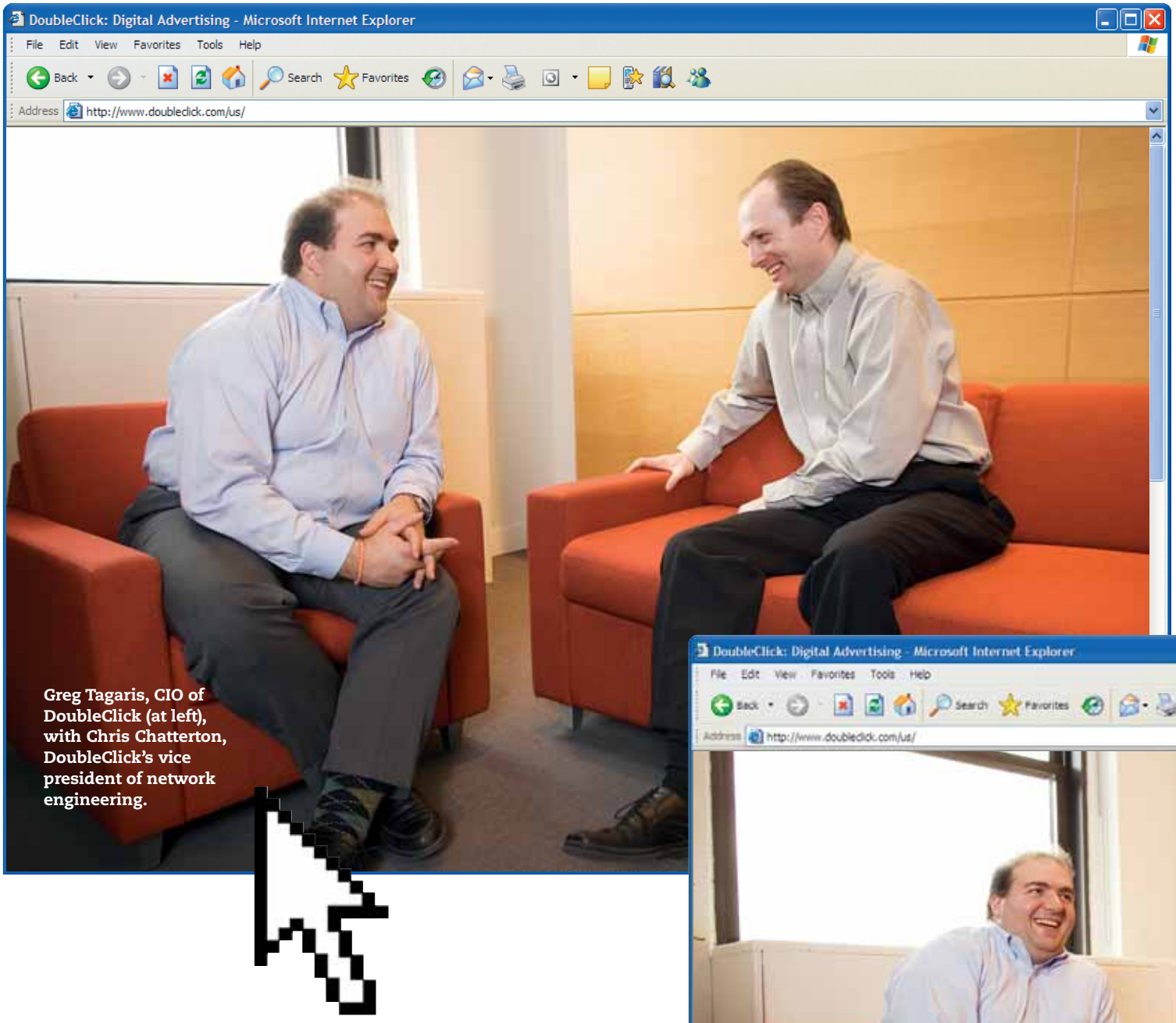


**Greg Tagaris, CIO of DoubleClick (at left), with Chris Chatterton, DoubleClick's vice president of network engineering.**


DoubleClick serves as many as 10 billion online ads a day, and as an F5 customer, they need "the latest, the greatest, and the fastest."

# The ad game

BY PETE BARTOLIK

*Photographs by Dennis Kleiman*

**In a dozen years, the online advertising industry has gone from a standing start to an estimated $16.8 billion in revenues last year in the U.S. This new industry has gone through a boom and a market-shattering bust, and is now several years into a rapid expansion that redraws the lines of traditional media. Ad agencies and marketing organizations are demanding greater accountability for the return on their investment, while publishers rush to attract maximum spend for "eyeballs" they deliver. Between advertiser and publisher sits DoubleClick. A leading provider of digital marketing technology and services, DoubleClick places and measures the performance of many of the ads that appear online.**

Successful online advertising campaigns require the ability to target and deliver advertising nearly instantaneously, and to measure and report on a variety of results. DoubleClick serves as many as 10 billion ads a day. The company has been growing by 50% year over year for the last three years and shows no signs of slowing down, in large part due to the performance of F5 Networks' BIG-IP Local Traffic Management (LTM) 8400 application delivery network appliances.

"The biggest technological challenge we have is scaling," says DoubleClick CIO Greg Tagaris. "We can do 10 to 12 billion ads per day at 200,000 ads per second. F5 affords me the ability to scale without worrying about how I'm going to do my local load balancing, how I'm going to do my wide area network load balancing, and my failovers."

Performance is a key driver in DoubleClick's ability to satisfy customers and the end-user targets, especially as the advertising world turns to more complicated presentations using rich media. "To deliver a video solution and still have that very short performance timeframe is more difficult than delivering a little 300-pixel-by-600-pixel static ad," says James Braun, DoubleClick's vice president of global operations. "Performance is a huge part of the end-user experience."

DoubleClick operates seven data centers in the U.S., as well as four in Europe and three in the Asia Pacific/Australian Rim. Several data centers have two pairs of F5 BIG-IP LTM 8400 network appliances, in combination with the F5 BIG-IP Global Traffic Manager. The remaining locales are converting to this infrastructure. "We're running at N+2 capacity, meaning we can have two data centers fail and still meet the capacity needs of what we're doing," says Chris Chatterton, vice president of network engineering with DoubleClick.

**FINDING THE RIGHT SPOT**

In April, DoubleClick announced an advertising exchange service aimed at matching unused Web advertising space—or online advertising inventory--to willing advertisers.

DoubleClick notes that 25% of online advertising inventory is never sold, according to a recent study by Forrester Research. Another 15% is sold off as "remnant," and even more is undersold. At the same time, advertisers continue to struggle to find the most efficient way to access and selectively target the inventory they want, at the right price.

"If the advertiser is willing to do this ad for a budget of $200 million over the next six months, but in reality, the way the site page works, individual views would only total $100 million, that's $100 million that could go somewhere else and make money for everyone in some shape or form," says James Braun, DoubleClick vice president of global operations.

## Consolidation equation

DoubleClick first began using F5 network appliances in late 2003, rolling out the BIG-IP 2400. But it was having to bring more and more units online to keep up with market demand as the business grew. "I would say we were probably adding 2400s almost on a monthly basis," says Braun. "It would have driven us crazy from a management perspective."

Chatterton says DoubleClick has been able to retire three 2400 systems for every 8400 that was brought into production. That consolidation went hand in hand with an upgrade of its ad servers to Hewlett-Packard ProLiant DL385 dual-core servers. The company has been able to reduce the number of ad servers by a 3-to-1 ratio, to approximately 300 total. Today, each of the BIG-IP LTM 8400 pairs handles network processing for 24 of the HP servers. Previously, each pair of BIG-IP 2400 appliances performed that function for just eight ad servers.

DoubleClick eliminated the need for dedicated SSL servers because it leverages SSL acceleration capability from its BIG-IP LTM 8400 platform. "The 8400 with PVA 10 can handle up to 10 gigabytes per second, versus one gigabyte on the 2400—which was actually 500 megabytes inbound and 500 megabytes outbound," notes Chatterton. "So it was a big improvement from a technology and performance perspective."

Tagaris points out that the relationship with F5 has given DoubleClick management significant confidence in its growth capabilities. "We have 3,000 servers and an enormous infrastructure," he says, "so if we don't have to worry about scaling our front-end ad delivery systems, to me that's the huge value proposition." ✵

***"F5 affords me the ability to scale without worrying how I'm going to do my local load balancing, how I'm going to do my wide area network load balancing, and my failovers."*** *—Greg Tagaris, CIO, DoubleClick*

As a customer, DoubleClick requires "very high performance, the ultimate in high availability and reliability of the platform; but they also require the latest features," says Mark Lyons, major account manager with F5. "They need the latest, the greatest, and the fastest. DoubleClick was one of six pilot customers that tested and rolled out the 8400."

## The targeting game

The company has a variety of service products aimed at the separate worlds of publishers and marketers. The core products are DART for Publishers, a hosted, enterprise-class solution that enables publishers to manage, serve, and report on ads through DoubleClick's central servers as well as to reduce infrastructure costs and increase revenues; and DART for Advertisers/Agencies (DFA). This hosted offering allows marketers and agencies to centrally manage creative assets, traffic more compelling ads, and track results to understand conversion, ROI, and branding, as well as automatically optimize creative content to improve results.

"We have many products, but we have two very distinct solutions, one for the [advertiser/agency] buy side and one for the [publisher] sell side," says Tagaris. "The publisher puts DoubleClick tags all over their website, and through our ad server system we'll deliver the right ad based on the criteria they have specified and ads they have sold. On the advertising side, it's basically the same with the little twist that they don't have a website, but they want to buy spots on websites."

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