

## OVERVIEW

Riverbed works with many government organizations, ranging from one of the world's largest navies that achieved "near-terrestrial" performance of its key Web applications on all of its ships, to the Defense Contract Management Agency (DCMA) that was able to consolidate its data centers. Dozens of government organizations have deployed Riverbed Steelhead products, ranging from small deployments to multi-site deployments with hundreds of appliances. These organizations have chosen Riverbed products to enable consolidation of global IT assets, speed data transfer for mobile field operations units, decrease backup and data replication times by up to 90 percent, and reduce bandwidth costs and utilization.

Here are a few examples of government customers who have deployed Riverbed Steelhead appliances in their networks.



## Federal Government Customers

### Riverbed® Steelhead® Products Accelerate Applications for Federal Government Customers



#### Riverbed Enables IT Consolidation at Defense Contracts Management Agency (DCMA)

When the DCMA consolidated its data centers from 17 to two, bandwidth upgrades did not address the issues of chatty protocols and network latency — so response times were low and users were unhappy. Deploying Riverbed Steelhead appliances at 41 sites enabled LAN-like performance for users, reverting to pre-consolidation performance levels.

The following is an excerpt from a Riverbed press release about DCMA's Riverbed deployment. The full press release can be viewed at [http://www.riverbed.com/company/news/press\\_releases/press\\_080607.php](http://www.riverbed.com/company/news/press_releases/press_080607.php).

*San Francisco, CA — August 6, 2007 — Riverbed Technology, Inc. (Nasdaq: RVBD), the performance leader in wide-area data services (WDS), announced today that the U.S. Defense Contract Management Agency (DCMA) has selected and successfully deployed Riverbed's Steelhead WDS appliances at sites across the globe to enable consolidation of IT resources and to reduce the cost and management overhead of distributed computing. DCMA selected Riverbed's Steelhead appliances for their ability to quickly and easily integrate into the agency's complex network and accelerate the performance of key applications over wide area networks (WAN), including Microsoft Windows, Exchange, and SSL-encrypted Web applications.*

*DCMA is the Department of Defense agency responsible for working with the defense industry to help ensure that systems, supplies, and services are delivered on time, at projected costs, and meet performance requirements. DCMA manages 300,000 prime contracts valued at approximately \$850 billion. Headquartered in Fairfax County, Virginia, DCMA employs approximately 11,000 civilian and military professionals worldwide. The agency is organized into six divisions: Aeronautical Systems, Naval Sea Systems, Ground Systems and Munitions, Space and Missile Systems, International, and Special Programs. The divisions are further subdivided into 60 Contract Management Offices (CMOs) with over 900 employee duty stations worldwide, working with over 16,000 Defense contractor firms.*

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*DCMA recently consolidated its IT infrastructure in the continental United States from 17 computing center sites to two primary data centers to reduce resource costs and management overhead. DCMA did not want user quality to suffer; it wanted its on-network and remote users to both receive LAN-like quality services over its WAN. DCMA accordingly upgraded its WAN — but soon found out that wasn't enough.*

*"If we had it to do over again, we'd install WAN optimizers before starting consolidation," said Mike Williams, CIO at DCMA. "The additional bandwidth DCMA had added couldn't overcome the latency problems caused by chatty application and networking protocols. Users really let us know that they were not happy with the slowdowns they were seeing as the consolidation was proceeding. So, we ended up having to play 'catch up,' and doing it fast."*

*Riverbed helped DCMA do it fast. DCMA has deployed 41 Steelhead appliances to date, both in the continental United States and internationally.*

*"Our users are much happier now. No one notices or cares anymore that we've consolidated our data centers," says Williams. "It's completely a non-issue now."*



## Riverbed Enables Marines to Stay Connected in Remote Locations

The U.S. Marine Corps needed to stay connected and accelerate collaboration in remote locations. Working with EDS, the Marines incorporated a Steelhead appliance into the new "NMCI in a box" solution, which allows LAN like access to key applications and data from anywhere in the world, without having to deploy significant infrastructure.

The following is an excerpt from an article in Washington Technology about the "NMCI in a box" solution. The full article can be viewed at [www.riverbed.com/lg/resource/washington\\_technology\\_nmci.pdf](http://www.riverbed.com/lg/resource/washington_technology_nmci.pdf).

*The governments of disaster-stricken countries usually accept international help, but want aid groups to leave as soon as the crisis is over. So traveling light is a major goal for Marine Corps officials, said Lt. Col. Richard Leino, assistant chief of staff at the G6 Marine Logistics Group. "You have countries that want your help, but they don't really want you to send too much stuff in," Leino said. "They don't want a lot of military vehicles on the road and that sort of thing, so you have to keep your footprint really small."*

*Traveling light is important, but so is giving troops access to e-mail, the Web and applications available through the Navy Marine Corps Intranet. With that in mind, Marine officials began a project to deliver*

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*NMCI to the field without needing to truck in servers and other infrastructure. Working with EDS Corp., the corps developed the Deployed Site Transport Boundary, nicknamed NMCI in a box, which gives Marines access to NMCI, optimizes bandwidth, and is small enough to be carried by two (people).*

*Although designed for a specific purpose, the system is part of a growing trend among the armed forces and first responders. They want network*

*connectivity in remote locations, and they want that connectivity to provide an office-like experience. Troops in a remote village want their e-mail system to feel the way it does on a permanent base.*

*The kit consists of a router, VPN device, bandwidth optimizer from Riverbed, access layer switch and uninterruptible power supply. It also has an option to set up a virtual local-area network that can include printers.*

*The Steelhead appliance also helps deal with the low bandwidth. Steelhead (appliances) provide wide area network optimization, application acceleration, and wide-area file and application services. Its data reduction, WAN optimization and application-level latency optimizations help speed applications. If one user downloads a file, other NMCI in-a-box users can access the file locally. Avoiding multiple downloads optimizes the limited bandwidth. As a result, the system can significantly enhance performance when users surf sites such as CNN, Leino said. "If everybody is surfing the same site, you download the Web page once, and...it's available. The only things downloaded are any changes that occur from the last time something was downloaded."*

*"One of the strengths of this is not just that it is extending NMCI, it is also the pattern-caching capability from (the) Steelhead (appliance)," Leino said. "It is not just the military that has a need sometimes to connect remote sites. You don't want to have to set up a server on the other end every time you want to provide services to somebody remotely. With this, it is almost like having a LAN capability even though you're using a satellite."*



## Health and Human Services Department OIG Avoids Further Bandwidth Upgrades with Riverbed

Health and Human Services OIG upgraded their WAN bandwidth to address application performance problems in their field offices. But the strategy did not work – network and application latency still hampered performance. After installing 95 Steelhead appliances across their offices, data traversing the WAN was reduced by 90%, and field offices experienced LAN-like performance over the WAN.

The following is an excerpt from an article in Government Computer News about HHS OIG's Riverbed deployment. The full article can be viewed at [www.gcn.com/print/25\\_22/41481-1.html](http://www.gcn.com/print/25_22/41481-1.html).

*The inspector general at the Health and Human Services Department has 10 regional offices that house servers accessed by 85 field offices throughout the country. Recently, the OIG wanted to modernize its IT infrastructure and consolidate resources in data centers.*

*"On paper, it seemed like a good idea," said OIG chief technology officer Chris Finucane.*

*The OIG considered another WAN upgrade before the consolidation. "But doubling the amount of bandwidth wasn't going to gain us anything," he said.*

*"We weren't completely saturating the T1s," Finucane said. "I understood enough about the philosophy of networking to know bandwidth wasn't the only element." So he sat in on a webinar on data center consolidation and WAN acceleration. There he was introduced to the Steelhead WAN optimization appliance from Riverbed Technology Inc. of San Francisco.*

*In the spring of 2005, Finucane brought in a pair of Steelhead appliances, along with similar tools from Cisco Systems Inc. and Juniper Networks Inc. of Sunnyvale, Calif.*

*"We did a bake-off between them," he said. "At the end of it, (the) Steelhead (appliances) had the best performance."*

*HHS began installing the appliances in August 2005 and finished up this past February (February 2006). It is using the high-end 5010 model in its 10 regional offices, which offers 45 Mbps throughput and up to 4,500 TCP connections for \$45,000 each. The 85 field offices have the midsize 1020 model, offering 2 Mbps throughput and up to 625 TCP connections.*

*The installation was done without additional funds, Finucane said.*

*"We're really happy with the devices," Finucane said. One field office that had been doing a lot of large file transfers had complained that the T1 upgrade had not produced any results. After the Steelhead (appliance) was installed, "I got an unsolicited e-mail that said, 'What did you guys do to the network? It seems like I'm getting LAN speeds.'"*

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Think fast.™

About Riverbed

Riverbed Technology is the IT infrastructure performance company. The Riverbed family of wide area network (WAN) optimization solutions liberates businesses from common IT constraints by increasing application performance, enabling consolidation, and providing enterprise-wide network and application visibility – all while eliminating the need to increase bandwidth, storage or servers. Thousands of companies with distributed operations use Riverbed to make their IT infrastructure faster, less expensive and more responsive. Additional information about Riverbed (NASDAQ: RVBD) is available at www.riverbed.com



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Riverbed Technology
199 Fremont Street
San Francisco, CA 94105
Tel: +1 415 247 8800
Fax: +1 415 247 8801
www.riverbed.com

Riverbed Technology Ltd.
Farley Hall, London Road
Binfield
Bracknell
Berks RG42 4EU
Tel: +44 (0) 1344 401900

Riverbed Technology Pte. Ltd.
391A Orchard Road #22-06/10
Ngee Ann City Tower A
Singapore 238873
Tel: +65 6508-7400

Riverbed Technology K.K.
Shiba-Koen Plaza Building 9F
3-6-9, Shiba, Minato-ku
Tokyo, Japan 105-0014
Tel: +81 3 5419 1990

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