

++++better backup++++

It takes two: Pairing F5's WANJet with Double-Take's software provides optimal WAN-based data protection, says Charlie Cano (left), a solutions architect at F5, and Christian Tate, director of business development at Double-Take.

F5 and Double-Take Software are joining forces to make backing up critical data over a wide area network easier.

Peace

(of mind)
corps

BY RICH FREEMAN

Photograph by Joshua Lutz

TO MOST people, "RTO" and "RPO" sound like obscure baseball statistics. To anyone responsible for business continuity planning, though, they're anything but fun and games.

An RTO, short for "recovery time objective," measures how much downtime a company is willing to accept in the event of a major system outage. An RPO, or "recovery point objective," indicates how much data loss the business can tolerate. Businesses design entire



disaster recovery strategies around RTOs and RPOs, using sophisticated replication software to keep primary and backup servers in close sync. Too often, though, they fail to take one crucial element into account: the wide area network (WAN) that connects all those servers. Poor WAN performance has put many a company's recovery time and recovery point objectives out of reach.

Working together, though, F5 and Double-Take Software Inc., a Southborough, Mass.-based leader in data protection software, have found a surprisingly simple and cost-effective way to help companies with WANs hit even the most aggressive disaster recovery targets. Sound too good to be true? F5 and Double-Take say it isn't—and they have the facts to prove it.

Recommended solution

Designed for use in Microsoft environments, Double-Take's software continuously captures byte-level changes on protected servers and replicates them in near real time to back up servers. "That's the most granular level of replication you can get," observes Bob Roudebush, Double-Take's director of solutions engineering.

Most companies rely on a WAN link to connect their primary and backup servers. Unfortunately, though, WANs are inherently slower than local area networks due to bandwidth constraints, latency, packet loss, and congestion. Fortunately, Double-Take comes with a variety of powerful compression and bandwidth-throttling features that help companies achieve their replication goals despite such limitations. But even those features sometimes aren't enough for customers with especially large volumes of data to replicate or especially sluggish WANs. Such busi-

nesses have historically had to choose between leaving key servers unprotected and leasing extra bandwidth, which can quickly get expensive. For example, data from F5 shows that upgrading a WAN connection between data centers in Seattle and San Jose from 45 Mbps to 155 Mbps will increase bandwidth costs more than 87% on average.

Both F5 and Double-Take recognized that customers would benefit from a third option: making better use of the bandwidth they already have. And that, as it happens, is exactly what F5's WANJet is designed to do. WANJet is an appliance-based WAN optimization solution that helps wide area networks function at near local area network speeds. By pairing WANJet with Double-Take's software, businesses can hit their RTOs and RPOs without leasing more bandwidth. In the fall of 2006, F5 and Double-Take inked an agreement to make the tandem of Double-Take and WANJet a recommended solution for WAN-based data protection.

Of course, saying that WANJet and Double-Take make an effective team is easy. But when it comes to disaster recovery, most companies demand more than mere words. "Because replication is so important to customers, they're hesitant to deploy something that hasn't been validated by the vendors," notes Phil de la Motte, a business development manager at F5 who works with Double-Take.

Accordingly, in December 2006, F5 and Double-Take collaborated on a rigorous series of tests designed to prove conclusively that their products deliver as advertised. Working out of twin lab facilities in Boston and Indianapolis linked by a T1 connection, the two companies executed three experiments. First they used Double-Take's software

to mirror (i.e., copy) a 4.5 GB messaging database from one lab to the other. Then they processed a variety of messaging transactions, giving the Double-Take software plenty of changes to replicate. Finally, they mirrored all of the content on a typical file server across the WAN. They did each of those three experiments in two different ways: once with WANJet and once without.

Stunning performance

The results were impressive: Replicating the messaging changes went six times faster with WANJet, mirroring the file server's data went eight times faster, and mirroring the messaging database went a whopping 11 times faster. "That's stunning," says Christian Tate, director of business development at Double-Take. "You're talking about a 600% to 1,100% improvement, for the same amount of overhead and infrastructure." What's more, customers can realize such gains without spending a lot of time on system integration, as configuring WANJet and Double-Take to run together took only a few simple administrative adjustments. "There really wasn't anything we needed to do to WANJet or Double-Take to make them work well together," says Charlie Cano, a solutions architect at F5.

For companies with data at multiple locations, Double-Take and WANJet offer an attractive alternative to unprotected servers or steep bandwidth investments.

"The more sites you have, the more this idea of slipping in a commodity piece of hardware to make all those problems go away is appealing," notes Roudebush. Plus, a faster WAN puts once-unachievable RTOs and RPOs back within a dispersed organization's grasp. "That ultimately boils down to less risk," says de la Motte. Meanwhile, companies can use the bandwidth that WANJet frees up for more than just faster replication. "Maybe someone using Double-Take can now implement a VoIP phone system and be a more efficient and nimble enterprise," observes Tate.

Thanks to the close cooperation between F5 and Double-Take, companies can be sure they'll actually realize such benefits. "We've tried this in a real-world environment and it works," Cano says. "That gives customers the confidence they need to deploy something this important."

F5 and Double-Take technicians are now preparing a joint deployment guide for their products. It won't be a long document, de la Motte predicts. "There are three or four different things you do in the Double-Take software's user interface to make sure it works optimally [with WANJet]," de la Motte says.

According to Tate, Double-Take has found working with F5 just as easy. "We fit like a glove," he says. *

Rich Freeman is a Seattle, Wash.-based freelance writer who specializes in business and technology.

Additional resources

- Double-Take home page** (www.doubletake.com)
- Information about WANJet** (www.f5.com/products/WANJet)
- White paper on disaster recovery planning using F5 and Double-Take solutions** (www.f5.com/solutions/technology/doubletake_wp.html)
- White paper on WANJet in data replication environments** (www.f5.com/solutions/technology/data_replication_wp.html)