

EverRun HA boosts Windows apps

REVIEW: MARATHON'S CLUSTER APP INCREASES SERVER AVAILABILITY

By Jason Brooks

Marathon technologies' EverRun HA offers companies a relatively easy way to bolster the uptime of their Windows Server 2003 applications.

EverRun HA serves up a virtualized Microsoft Windows Server 2003 environment from a linked pair of Windows Server 2003 systems, which Marathon calls CoServers.

In each pair, a primary CoServer hosts the virtual server instance while the secondary server stands by, prepared to take over automatically in case of hardware failure, or on command.

The great thing about the EverRun HA approach is that the virtual server runs a regular copy of Windows Server 2003, so applications install normally and don't require any special modifications. eWeek Labs recommends that companies interested in boosting the availability of applications served from Windows Server 2003 systems obtain an evaluation copy of EverRun HA, available at www.marathontechnologies.com/everrun_ha.html.

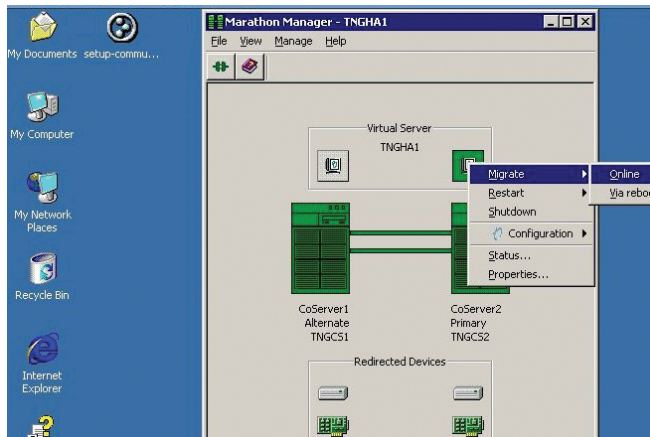
EverRun HA costs \$7,500 per system for single-socket servers, \$10,000 per server for dual-socket machines and \$12,500 for servers with more than two sockets—that's in addition, of course, to the costs for the CoServer hardware and for the two Windows Server 2003 licenses.

For users of Windows Server 2003 Enterprise Edition, however, there's no need to shell out for an additional Windows Server license for the virtual server: Thanks to the recent changes in Microsoft's Windows Server licensing, as many as four virtual instances of Windows Server can run under an Enterprise Edition host.

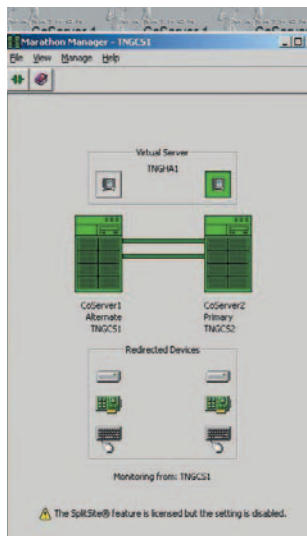
EverRun HA runs on Windows Server 2003 Standard Service Pack 1 or Windows Server 2003 Enterprise SP1. The EverRun HA documentation specifies that Windows Server 2003 be installed with SP1 slipstreamed into the installation disk, rather than applied after installing Windows Server.

Business as usual

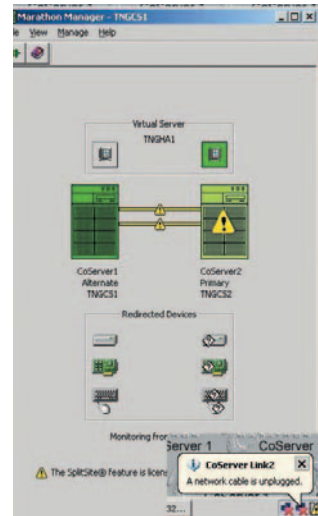
one of the key selling points for EverRun HA is the fact that it works with regular Windows applications. We installed on our EverRun virtual server the Windows version of the Plone content management system. With its Web presentation, database, application server and WebDAV (Web-based Distributed Authoring and Versioning) file store elements, the



We accessed and controlled our EverRun HA virtual server using Windows' Remote Desktop.



After eWEEK Labs set up the EverRun HA servers, the management console showed all green—our CoServer pair was up and running normally.



When we pulled the plug on our primary CoServer, the management console registered the failure right away, both in the main dialog and in the task bar.

Plone application provides plenty of interesting targets against which to test EverRun HA's functionality.

EverRun HA requires two servers for use as CoServers, each with two physical processors, two cores or Intel's Hyper-Threading functionality. The product needs at least two

processors per CoServer because it dedicates one processor to running the virtual server and the other to running the CoServer itself.

Each machine also requires at least 768MB of RAM, a Gigabit Ethernet adapter for keeping in sync with the other CoServer and another Ethernet adapter for a network connection. The machines needn't be identical—based on their needs and hardware resources, companies can consider deploying the secondary CoServer on slimmer hardware than the primary one, for instance.

Once we had our two CoServers and the virtual server up and running with Plone installed, we promptly yanked the power cord from the machine we'd designated as the pair's primary CoServer. From the EverRun HA management console running on our secondary system, we then watched to see what would happen.

As advertised, the secondary CoServer immediately recognized the loss of its sibling server and began taking over the virtual server hosting duties. The handoff took a little

more than a minute, during which time our test Plone site was inaccessible. Once the handoff was complete, our Plone server was back up and functioning normally, apparently no worse for wear.

When we powered up our downed CoServer and allowed it to boot back up, we couldn't tell from looking at the management console whether the machine was ready to rejoin its partner in the cluster. We had to right-click on the CoServer we'd downed and choose to re-enable it, which kicked off a disk-syncing operation in which the virtual disk of the secondary CoServer was copied, block by block, back to the primary CoServer. We could watch the progress of the disk copy through the product's management console.

After the mirroring operation was complete, the primary CoServer automatically resumed hosting duties for the virtual server.

Pulling the plug on the secondary CoServer had a similar effect, except that we didn't lose our connection to our virtual server and its Plone instance.

We then executed a planned shutdown of the primary CoServer, by first migrating our virtual server to the secondary CoServer from the product's management console. Unlike with our plug-pulling stunt, the planned migration occurred without any noticeable downtime of our Plone server.

Marathon sells a separate, \$16,000 product called EverRun FT that not only keeps the server pair data in sync but also executes code in parallel. If we had been using EverRun FT, there would have been zero downtime in our plug-pulling scenario.

To apply security updates to our Windows servers, we had to bring one of our CoServers offline, update it, migrate the virtual server to the updated system and repeat the process for the second CoServer (before updating the Windows instance installed in the virtual server).

We accessed our EverRun HA server trio using Windows' remote desktop feature, and we were able to access EverRun HA's management console from either of our CoServers or from the virtual server. ☺

Advanced Technologies Analyst Jason Brooks can be reached at jason_brooks@ziffdavis.com.

EXECUTIVE SUMMARY

EverRun HA Marathon Technologies' EverRun HA is a solid, low-hassle solution for boosting the availability of standard Windows Server applications. In eWEEK Labs' tests,

EverRun HA made it easy to set up and maintain a configuration that would stand up to hardware failures and system maintenance downtime. For more information, go to www.marathontechnologies.com.

COST ANALYSIS: EverRun HA costs a relatively reasonable \$7,500 per

system for single-socket servers, \$10,000 per system for dual-socket machines and \$12,500 per system for servers with more than two sockets.

KEY PERFORMANCE INDICATORS

USABILITY	GOOD
PERFORMANCE	GOOD
HARDWARE SUPPORT	GOOD
SOFTWARE SUPPORT	EXCELLENT
MANAGEMENT	GOOD

EVALUATION SHORTLIST

- Microsoft Windows Server 2003 Ships with clustering and network load-balancing functionality built in, albeit with more setup complexity (www.microsoft.com)

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