SteelEye Technology LifeKeeper Protection Suite for Windows

Editor's Note: To read the full-length version of this review, go to www.windowsitpro.com and enter InstantDoc ID 98129.

LifeKeeper Protection Suite for Windows 6.1.2 (LPSW) combines two SteelEye Technology products: SteelEye Data Replication (SDR) volume replication support and LifeKeeper for Windows high availability. Though bundled together, they install as separate services, have separate documentation, and separate management interfaces. Administration is somewhat integrated, as LifeKeeper automatically configures SDR when you configure a failover scenario that requires it. Key features include block-oriented synchronous or asynchronous volume replication, a variety of failover modes supporting shared or replicated storage on both physical and virtual servers, and a new continuous data protection (CDP) function within the recovery feature set.

A LifeKeeper cluster consists of two or more interconnected servers. A cluster can include servers that are local to or remote to the primary application server, and administrators can configure them to fail over to a standby server either automatically or manually.

LPSW includes application recovery support for file server resources, including volumes and file shares, and for Microsoft IIS. LifeKeeper supports many standard storage types. Windows fault-tolerant disk sets are an exception, and unsupported.

To test LPSW, I used two Windows 2003 systems configured with IIS and a disk volume defined with a share. Each system also had two Ethernet cards, one for LifeKeeper's heartbeat network, the other for normal server communications. I installed LPSW to both servers and defined a communications path for LifeKeeper heartbeat communication. Next, I defined a protected resource hierarchy using features of the basic recovery kit included with LifeKeeper core components. A wizard helped me define a volume resource and configured SDR to mirror the volume's data to the other server. I also created an IP address resource and a DNS resource.

To test failover, I configured LifeKeeper on the primary server to fail over upon shutdown, then I shut down the server. In less than a minute, my file share was again accessible through the IP address I had assigned to the virtual server name I had created and defined in DNS. After bringing the primary server back up, I failed the resources back by bringing the top-level resource back in service on the primary server. Again, it took only a minute for the IP resource to be accessible again and a few minutes more for the DNS resource.

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LifeKeeper core components include a configuration database, a communications manager, an alarm interface used to trigger events, and a control interface to locate the correct scripts used for recovery actions. LifeKeeper requires at least two communication paths between the servers—one or more for LifeKeeper heartbeat communications (a periodic message between paired nodes that detects faults), and one or more for normal server communications.

SUMMARY

LifeKeeper Protection Suite for Windows

PROS: Broad feature set supports complex failover scenario that includes multiple remote and local servers as well as both shared and replicated storage; easy to implement; flexible administration; easy-to-execute manual failover and fail-back processes; reliable automatic failover

CONS: DF documentation for the underlying replication and high-availability components isn't integrated

RATING: ◆◆◆◆◇

PRICE: $2,000 per server with a $500 annual support fee

RECOMMENDATION: Add LifeKeeper Protection Suite for Windows to your short list when looking for a flexible, easy-to-implement high-availability solution.

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In spite of my successful definition of resources and failover testing, the LifeKeeper GUI showed both the primary and standby servers in a "warning" state. Through trial and error, and subsequently confirming this in the documentation, I figured out that LifeKeeper wants you to define more than one heartbeat communication path. The warning icon changed to the OK icon after I defined an additional heartbeat path on the primary IP network.

I really liked LPSW's support for both replicated and shared storage, its ease of configuration for both scenarios, and its support for more complex failover scenarios involving multiple local and remote servers. However, although the documentation for the underlying software components and recovery kits was well organized and easy to follow, it lacked the level of integration you would expect, considering the single-product image that SteelEye is marketing. If you're looking for an easy-to-implement high-availability solution, I recommend that you put LPSW on your short list.

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—John Green