

Network Computing

For IT By IT

SPECIAL REPORT

DATA AT RISK

JON TOIGO'S ANALYSIS OF THE DISASTER-RECOVERY MARKET
AND ASSESSMENT OF DR SYSTEMS

**SOFTEK WINS
EDITOR'S CHOICE AWARD
FOR DISASTER-RECOVERY SOLUTIONS**



NATURAL SELECTION

With six vendors vying to help fictional retailer Darwin's Groceries fortify its data-protection strategy, Fujitsu Softek bagged the bid

By Jon William Toigo

» When we set out to rate soup-to-nuts disaster-recovery systems, we started by polling our readers to determine the pain points driving IT managers tasked with data protection. An interesting—but predictable—finding in our e-mail poll came in response to a question about the hurdles confronting planners seeking to develop a data-protection capability. The No. 1 response: a lack of funds to build a strategy better than whatever was in place.

Disaster-recovery tools don't come cheap. One respondent said he considered the cost of most systems greater than the measurable benefit of protecting his data. Echoing this, another said the cost to scale her company's data-protection system in response to data proliferation was simply too great.

But other obstacles cited by readers had to do with vendors and their products: confusing vendor claims; difficulties in making products work with existing infrastructures; and a lack of facilities in which to test and

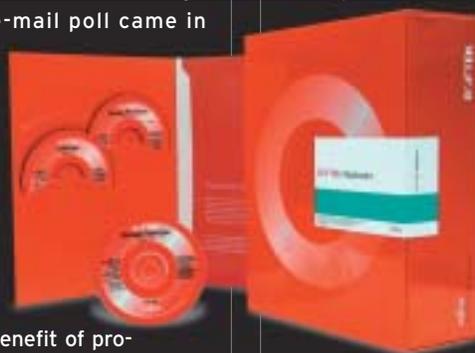
vet solutions to determine which were the right fit.

To help sort through the options and their costs, we created an RFP (request for proposal) covering a data-protection setup for Darwin's Groceries, a hypothetical retail company.

Darwin's—whose corporate motto is "Driving mom & pop grocers to extinction, one community at a time"—has had its survival instincts heightened by a slew of sometimes-violent demonstrations at a number of its "SuperGigantic store" grand openings around the country. Senior management is concerned

that adversaries may one day direct their ire against the company's IT infrastructure, and they want a data-protection system with teeth.

On behalf of Darwin's, NETWORK COMPUTING invited leading data-protection product and service vendors to bid on the job. Of the 40 companies contacted, ranging from disk and tape hardware vendors to backup software vendors to



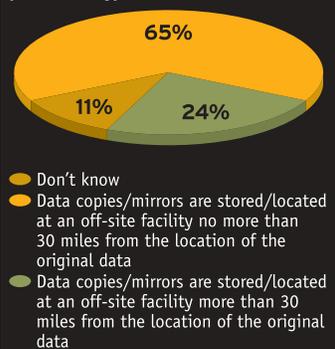
disaster-recovery facilities, only six responded: Computer Associates International, Fujitsu Softek, Hewlett-Packard, Quantum Corp., Tacit Networks and Veritas Software. Of the many that opted out, a few offered reasons for doing so, including a lack of available resources to complete a response, fear that a “proprietary solution” would be rejected and product-release dates incompatible with the RFP deadline. Most vendors, unfortunately, offered no explanation at all, or initially indicated an interest to participate but never delivered a response (for a look at SunGard Availability Services and LiveVault Corp.

Of those that came through, Tacit Networks had to be disqualified because its response provided no mechanism for replicating databases. Indeed, its system applies only to file replication. Be that as it may, we’ve included a summary of Tacit’s offering because it provides a unique and potentially powerful capability for those seeking file-system-based data replication.

The responses covered three categories of data-replication approaches: replication at the hardware level (HP and Quantum), replication via host software (CA, HP, Fujitsu Softek, Quantum and Veritas) and replication in a network (Tacit). One method that was not examined was replication within the application.

E-MAIL POLL

A data-protection strategy should place redundant data far enough away from original data so that it’s not impacted by the same disaster. What is the physical distance between original data and protected copies in your strategy?



Source: NETWORK COMPUTING E-Mail Poll, 623 respondents

Oracle is steadily building out its database-replication capabilities—with Parallel Server, for example—but we think it’s testimony to the immaturity of the database vendor’s approach that the subject of database parallelism didn’t even come up in the proposals received. Or, it may reflect a common-sense view of replication: Making copies at the application layer would likely require one replication product per application, whereas performing copy operations at the storage layer can be done by a single set of tools.

In the end, our analysis of the proposals provided a matrix of options rather than a “one size fits all” solution. If you’re looking to answer one of the most

difficult and important IT questions of the day—how to protect one of your company’s most irreplaceable assets, its data—we recommend you gather as many proposals as possible to facilitate decision-making. While getting a number of quotes is always important, of course, the responses we received illustrated the wide range of possibilities and price ranges (see the complete responses at ID# 1501rd1).

This time out, Fujitsu Softek gets our Editor’s Choice nod. No doubt, every solution provided (except Tacit’s) could have met the needs of Darwin’s. But Softek (and its

REAL-WORLD LABS

REPORT CARD

Disaster-Recovery Solutions

	Fujitsu Softek	Veritas Software	Computer Associates	Quantum	Hewlett-Packard
FEATURES (50%)					
Support for existing platforms (10%)	5	5	5	3	4
Recovery time objectives (10%)	5	5	5	5	5
Security features (10%)	2	2	2	2	2
Testing and verification features (10%)	1	2	2	1	1
Scalability (10%)	5	4	4	4	3
PRICE (25%)	5	5	4	3	2
DETAILED DEPLOYMENT PLAN (10%)	5	3	3	4	4
DEPLOYMENT TIME FRAME (10%)	5	5	4	2	3
COMPLETENESS OF RESPONSE (5%)	5	4	4	3	5
TOTAL SCORE (100%)	4.30	4.05	3.70	3.00	2.95

A≥4.3, B≥3.5, C≥2.5, D≥1.5, F<1.5 A-C GRADES INCLUDE + OR - IN THEIR RANGES. TOTAL SCORES AND WEIGHTED SCORES ARE BASED ON A SCALE OF 0-5.

A-

B+

B

C+

C

FEATURES responses were graded based on ability to work (at least initially) with the existing environment, ability to deliver on the required recovery time, security features, ability to be tested and verified, and scalability as Darwin’s needs change over time.

PRICING responses were graded based on competitiveness of pricing against other participants in the review.

COMPLETENESS OF RESPONSE reflects subjective weighting of such factors as business case offered by the vendor and vendor credentials.

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fellow software-company contenders) avoided the forklift upgrade to existing infrastructure right off the bat.

Fujitsu Softek

Softek's straightforward proposal was a welcome relief from the rivals' somewhat obfuscated responses. It proposed a three-phase approach to solving the replication problem Darwin's faced.

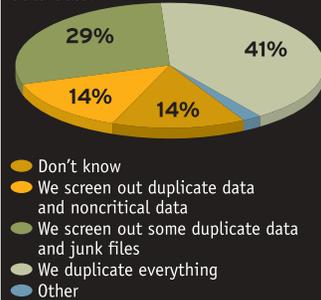
Phase 1 required the licensing of Softek's Replicator product for servers at headquarters, plus the purchase of 40 TB to 50 TB of direct-attached storage and servers to act as replication targets. Nice thing about the Softek bid was that it left the choice of servers and storage open: Expensive Tier 1, inexpensive Tier 2 or just about anything Darwin's might have locked away in its closets would do the trick. Softek also proposed to preserve Darwin's existing investment in high-end tape libraries for use in disaster recovery until a fully functional DR site could be established and made operational in Phase 2. In short, a centralized local replication with dump to tape was specified in the short term.

In Phase 2, Softek proposed that the Replicator system be extended across a WAN to a SuperGigantic store, built out to serve as a DR backup site. This was an interesting idea, if a bit naive: Seeing as Softek's parent company, Fujitsu, sells POS (point of sale) systems, it should have known that the only thing more expensive than data centers is retail space. The profitability of a retail or grocery store is directly proportional to the amount of square feet allocated to merchandise, so one could foresee store personnel beginning to fill IT recovery-center space with overstuffed bananas and canned meat products.

Wherever the recovery site was located, some direct-attached arrays and servers would be installed in Phase 2. Softek proposed that its Storage Manager software then be added, both to scrub the data before replicating it through the enterprise and to manage the replication processes together with other aspects of the storage environment.

E-MAIL POLL

What methods (if any) are used to cull out duplicate data or noncritical data from your backup or mirror data sets?



Source: NETWORK COMPUTING E-Mail Poll, 623 respondents

In Phase 3, Darwin's would deploy a SAN and use Replicator to migrate data from direct-attached storage to the new topology. The company would implement Softek SANView to manage the SAN, Softek Provisioner to perform heterogeneous LUN management and, optionally, Softek EnView to manage QoS (Quality of Service) and service-level compliance.

The writers at Softek seemed to get the message that Darwin's wanted to keep costs low while replicating a sizable amount of data locally and remotely. Softek's Replicator leverages existing

infrastructure and low-cost build-out options, and supports existing IP networks between locations. Vendor-agnostic, the solution precludes any hardware lock-in.

The only missing ingredient was a provision for security in stored data. This was more than compensated for, however, by the detailed and eminently forthright discussion of the need for data hygiene and testing methodology. Rolling out the proposed solution seemed extraordinarily simple. Two days of professional services would probably be required for Phase 1, at a cost of \$5,000. The Replicator Server implementation would come out to \$11,500 for a four-processor server license and \$1,170 per year in maintenance. The cost of additional local disk and server hardware was not addressed.

Phase 2 adds to the replication strategy a cost of \$39,000, plus \$795 per managed server. This amounts to \$48,540 for servers in the HQ data center and DR facility, plus \$126,405 to instrument all store servers into the managed pool, for a total cost of \$174,945. Not included is the cost of storage and server hardware at the DR site.

Phase 3 is when the infrastructure forklift occurs and a SAN is implemented. As with the other bids, most of this infrastructure-upgrade cost is undocumented. Softek's software components total \$50,000 for two Storage Provisioner "engines," and \$19,500 for EnView. SANView pricing was not provided—about the only deficit in the bid.

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