Cornerstone Systems, Inc.

zVault for S/390 Family of Servers

Cornerstone Systems, Inc. in partnership with **Fundamental Software, Inc. (FSI)** offers a selection of Data Backup and Disaster Recovery (D/R) Services uniquely designed for customers who have chosen FLEX-*ES* ® for their mainframe. FLEX-*ES* is an integral part of the zFrame® family of servers offered by Cornerstone Systems.

FSI's Facilities

Fundamental owns and staffs a hardened steel and concrete building located at the center of approximately 4 squares miles in a geologically stable area in Northern California. Seated

deliberately in a valley shielded from radio interference, the building was originally built by AT&T as a major satellite communications center. Secure buried fiber trunk lines with redundant paths are in place. Three satellite transceivers for which Fundamental is FCC licensed are available for customer communication from the Pacific to Atlantic Oceans. There are 30 days of onsite fuel capacity, ensuring a long term power generation capability should there be a serious power disruption from normal providers.

Data Back-Up Services

With FLEX-*ES* Version 7 or 8, Cornerstone and FSI provide two distinct backup services that can be used to store your data for use in the event of a disaster at your company site.

Secure Remote FakeTape™ Offsite Storage

Cornerstone customers have embraced tape emulation provided by their zFrame and the Secure Remote FakeTape improves upon the processes already in place. Here is how it is implemented:

- When a FakeTape file is mounted for use on a FLEX-*ES* or FLEXCUB tape drive, you can specify the network address of a server at the FSI D/R facility.
- Writes and reads to the tape drive are transparently satisfied over a secure encrypted connection to the FSI D/R facility.
- Your company's data can be written to local FakeTape then transmitted to the Vault in offline or batch mode.
- The file is protected from a disaster, since your "tapes" are already present at FSI's D/R facility, ready for your use.
- Your data remains protected through encryption while stored until ready for use.
- Cornerstone can help customize the backup process by using tools such as AFLIB and FSIHOST.
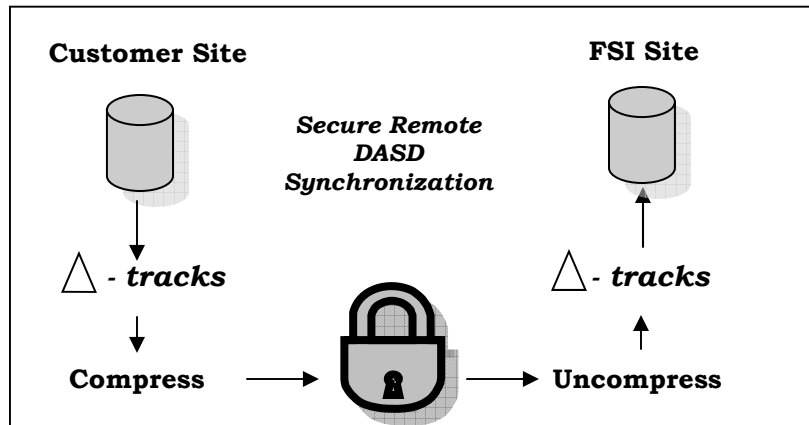
Secure Remote DASD Image Synchronization

Another offering is a batch mode synchronization capability for count key data (CKD) DASD volumes. This service allows for a fast, secure synchronization of changed data on your DASD volumes to an image of that volume residing at FSI's D/R facility. In the event of a disaster, you would have spinning images of your DASD that are up-to-date to the point of your last synchronization. This can dramatically reduce the recovery time when disaster strikes and you must implement your D/R plan.

- You control when batch mode synchronization is to occur. Possibly once per day or perhaps more frequently.
- Only those DASD volume tracks that have changed since the previous synchronization are transmitted during the current one.
- Cylinder exclusion options exist for known cylinders on volumes whose synchronization makes little sense. Examples could be VM PAGE, TDSK areas, or sort work areas.
- Tracks are compressed and encrypted before transmission.
- The transmitted tracks are applied to the synchronized copy.

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CORNERSTONE SYSTEMS, INC.

FSI
Fundamental Software Inc.

zFrame®

IBM Premier Business Partner

In brief here is how synchronization is implemented:

Customer Site   **FSI Site**

Secure Remote DASD Synchronization

△ - *tracks*   △ - *tracks*

Compress ——→ 🔒 ——→ **Uncompress**

Disaster Recovery System Services

The Disaster Recovery Backup Process of today is:

♦ *Time Consuming*
♦ *Expensive*
♦ *Complex*
♦ *Difficult to Administer*

In fact some refer to it as the "**Rubber Tire Network**", for it usually takes planes, trains or automobiles to get a back-up system to you! Cornerstone and FSI feel that there is a better way and would like to present two options to you.

Dedicated Recovery Server

In this option, there will be a dedicated recovery server, housed in a rack at the FSI facility, already configured with the subscribed customers requirements. In the event of a disaster declaration, the server is ready and may be used remotely by the customer, by exploiting the inherent remote operation capabilities of FLEX-*ES* (inherent in all zFrames), or your server can be quick shipped to your site.

FSI's "on-demand" Server Pool

Upon declaration of a disaster, the customer's on-site backups (tapes and synchronized DASD if subscribed to that service) are moved within the facility to a server from the on-demand pool. The customer can then IPL and recover their system as appropriate using the on-site data.

Virtual Tape Vault

- Can operate between systems:

1. At local customer site
2. At customer's local site and customer's own DR site
3. At customer's local site and FSI (Salt Creek, Calif.)

- Customer commitment in time/effort reduced to almost zero
- AFLIB supports virtual silo over the network and is integrated with zOS tape catalogues

For zFrame® or System z™

System z9™

zCenter/
zFrame
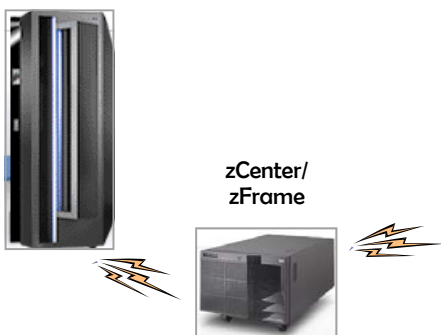
Ask us about zVault capabilities for your System z or call us at **1-800-510-3004** to discuss all of the new offerings on this brochure. Be sure to visit our web site at **www.csihome.com** and view Cornerstone System's full line of products and services.