Secure zSeries Backup Volumes with SecureZIP

P KZIP has long been a trusted utility for backing up datasets on all platforms, including the zSeries platform. PKZIP's compressed archives provide an ideal container for efficiently storing copies of critical data onsite or offsite.

SecureZIP protects the confidentiality of your data by adding enterprise-grade encryption to PKZIP's existing capabilities. Using X.509 V3 digital certificates and the NIST-approved, FIPS 197-certified, AES 256-bit algorithm, SecureZIP provides strong, public/private key encryption that integrates easily with your backup processing. SecureZIP also provides other security-related features, including these:

- **Contingency-key processing** to ensure that the organization can always decrypt encrypted data

- **Filename encryption** to ensure that file metadata is protected from malicious interception

- **Digital signing/authentication** to validate identity and guard against data tampering

SecureZIP's ability to back up critical business datasets and to store these datasets in strongly encrypted archives using the industry-accepted, cross-platform ZIP format is gaining SecureZIP an increasingly important place in the backup strategies of the zSeries data center.

Back Up Directly to SecureZIP Secure Tape Archives

You can write as many as 65,000 individual member datasets to a SecureZIP archive, and strongly encrypt them in the process. Datasets can be grouped by application, volume grouping, and so on. To restore the datasets, you extract them from the archive.

To save space and CPU cycles, SecureZIP compresses the datasets before encrypting them. SecureZIP maintains a directory in the archive of the datasets the archive contains. SecureZIP archives can be cataloged in the MVS

catalog, and the volumes can be managed using removable media managers such as DFSMSrmm or CA-1.

Back Up Specified Datasets

Here is sample JCL that can be used with SecureZIP to back up specified datasets to an archive.

```
//SECUREZP JOB acct,'SECUREZIP BACKUP', CLASS=A,REGION=8M
//ZIPONLY PROC ZIPDSN='RE..QUIRED',TUNIT=CART
//*******************************************************************
//*** THIS PROC HAS ONE STEP
//*** THE ZIPIT STEP INVOKES SECZIP TO BACKUP SPECIFIED DATASETS
//*** THE SYMBOLIC PARAMETERS FOR THIS STEP ARE:
//*** TUNIT - USED TO SPECIFY THE TAPE UNIT TYPE - DEFAULT=CART
//*** TO RUN - ENTER THE SYMBOLIC PARMS AND ENTER THE PASSWORD TO USE
//*** ALSO ENTER THE LIST OF DATASETNAME MASKS TO BACKUP
//*******************************************************************
//ZIPIT    EXEC PGM=SECZIP
//SYSPRINT DD SYSOUT=*
//ARCHOUT DD DSN=&ZIPDSN.,UNIT=&TUNIT.,DISP=(NEW,CATLG),
// DCB=(RECFM=FB,LRECL=32760,BLKSIZE=32760),LABEL=(1,SL)
//*
// PEND
//DOIT EXEC ZIPONLY,ZIPDSN='zipped.archive'
//ZIPIT.SYSIN    DD *
-ENCRYPTION_METHOD(BSAFE_AES256)
-PWD(|
 Put your password here)
-ARCHIVE_OUTFILE(ARCHOUT)
-DATA_TYPE(BINARY)
-ACTION(ADD)
list.of.datasetname.masks.here
//
```

Capture the Archive's File Catalog

Here is sample JCL that can be used to capture the file catalog maintained in the central directory of the ZIP archive. This information can be saved for reference.

```
//SECUREZP JOB acct,'SECUREZIP BACKUP', CLASS=A,REGION=8M
//ZIPVIEW PROC ZIPDSN='RE..QUIRED',OUTDISP='RE..QUIRED,
// OUTSP='RE..QUIRED',OUTUNIT='RE..QUIRED',
//OUTDSN='REQUIRED'
//*****************************************************************
//*** THIS PROC HAS ONE STEP
//*** THE ZIPVIEW STEP INVOKES SECUNZIP TO VIEW THE PROPERTIES
//*** OF THE FILES IN THE ARCHIVE.
//*****************************************************************
//ZVIEW   EXEC PGM=SECUNZIP
//SYSPRINT DD DISP=&OUTDISP.,SPACE=&OUTSP.,
// UNIT=&OUTUNIT.,DSN=&OUTDSN,
// DCB=(RECFM=FB,LRECL=132,BLKSIZE=5808)
//*
// PEND
//DOIT EXEC ZIPVIEW,ZIPDSN='zipped.archive',
// OUTDISP=OLD,OUTSP='(CYL,(1,1,1))',
// OUTUNIT=SYSDA,OUTDSN='MY.LISTOF.ZIPS(MYZIP1)'
//ZVIEW.SYSIN    DD *
-SUPPRESS_DYNALLOC_MSGS
-SYSPRINT_DCB(FB132)
-ARCHIVE_DSN(MY.ZIP.ARCHIVE)
-ACTION(VIEW)
//
```

If you have questions, please contact PKWARE, Inc. at www.pkware.com or 800-4PKWARE.