

z/OS V1R13

BCP service aids:

z/OS problem documentation upload utility (PDUU)

Overview

- Problem Documentation Upload Utility is a utility that facilitates sending large amounts of documentation in an efficient manner
- Prior to z/OS V1R13, Problem Documentation Upload Utility (MTFTPS) was an independent tool which is available for downloading from IBM web site
- z/OS V1R13 has included this in the z/OS operation system
- It is now a z/OS Service Aids program

▪ Problem statement / need addressed:

- Simplify and speed up the process of sending problem related materials from customers' sites to IBM
- Provide a simple, readily available industry standard level of encryption between two z/OS end points

▪ Solution:

- Provide the problem documentation upload utility in the z/OS operating system
- Use triple DES encryption (the feature is called CPACF)

▪ Benefits:

- Allows customer defined criteria to drive multiple simultaneous FTP sessions, allowing higher utilization of a customer's networking infrastructure
- Shorter transmission time for very large data sets
- Encryption capability ensures that the transfer occurs in a secured manner

Usage and invocation

- Use the PDUU as the primary utility for sending large volumes of documentation to the IBM FTP site
- Data sets are compressed and sent in parallel using multiple, simultaneous FTP sessions
- There are two work files for each FTP session
- You can have up to 20 FTP sessions running simultaneously
- The work data sets are dynamically allocated and can range in size 1MB – 9,999MB
- PDUU always compresses the input data before it is written to the work data sets
- No need to use an additional tool such as AMATERSE or TRSMAN to compress the input data set before using the PDUU
- 192-bit triple Data Encryption Standard (DES) can be requested by using CIPHER_KEY keyword
- Uses a built-in instruction to do encryption, available on all processors starting with the z990 and z890
- **Changes made to package the PDUU as part of z/OS:**
 - The PDUU utility program name is AMAPDUPL
 - MTFTPS ships as an alias entry point to AMAPDUPL for compatibility
 - AMAPDUPL resides in SYS1.MIGLIB (which is a data set in the LNKLIST concatenation), so a STEPLIB DDNAME is not necessary to invoke AMAPDUPL (compared to the earlier MTFTPS tool)
 - The complete description of the AMA messages are in z/OS MVS System Messages, Vol 1 (ABA-AOM)
- **Must properly configure z/OS Communications Server to use the FTP client program** (See the topic on Transferring files using FTP in z/OS Communications Server: IP Configuration Guide)
- **PDUU supports following types of data sets:**
 - Members of partitioned data sets (PDS) and partitioned data sets extended (PDSE)
 - Large format (DSNTYPE=LARGE) and traditional sequential data sets
 - Extended format sequential data sets
 - Fixed and variable, blocked and unblocked, unspanned record formats (RECFM = F,FB,FBS,V,VB)
 - Data sets with records containing ISO/ANSI or machine code control characters
 - Data sets in cylinder-managed space
- **PDUU does not support following types of input data sets:**
 - Large block interface (LBI) (no BLKSIZE value)
 - VSAM and direct (DSORG=DA) data sets
 - Data sets with keys (KEYLEN)
 - Spanned record formats (VBS)
 - Partitioned data sets (PDS) and partitioned data sets extended (PDSE)
 - z/OS UNIX files
 - Any data set with an undefined-length record format (RECFM=U)
- **JCL statements for PDUU:**
 - AMAPDUPL utility is invoked via JCL (PGM=AMAPDUPL) consisting of the following DD statements:
 - **SYSPRINT**
 - Specifies the job output data set
 - The data set can be either SYSOUT or a sequential data set
 - Must be RECFM=FB,LRECL=134

- **SYSUT1**

- Specifies the sequential input data set to transfer to IBM

- **JCL statements for PDUU...**

- **SYSIN**

- Specifies the sequential data set that uses following control statements. (The data set must be RECFM=FB,LRECL=80)
 - **TARGET_SYS** – The name of the TCP/IP system to transfer the files to using FTP
 - **USERID** – The user ID on the target system that is used to send the files
 - **PASSWORD** – The password for the USERID on the target system
 - **ACCOUNT** – The account data that is sent when an FTP session is started.
 - **WORK_DSN** – The prefix for the data set names of work files on the sending system
 - **WORK_DSN_SIZE** – The size of the work files in megabytes
 - **KEEP_WORK** – The parameter to save the work data sets that are dynamically allocated for each FTP session.
 - **DATACLAS** – The data class to use when allocating the work files on the sending system
 - **STORCLAS** – The storage class to use when allocating the work files on the sending system
 - **CC_FTP** – The number of parallel FTP sessions to use when transmitting the files
 - **DIRECTORY** – The directory on the target system where the files will be sent with FTP
 - **PMR** – The PMR number that this file is to be associated with
 - **CIPHER_KEY** – The encryption key to use for 192-bit triple DES encryption

- **FTPCMDS**

- An optional DD statement that provides additional flexibility for traversing firewall or proxy servers

- **Example of running AMAPDUPL in batch mode**

```
//FTP EXEC PGM=AMAPDUPL
//SYSPRINT DD SYSOUT=*
//SYSUT1 DD DISP=SHR,DSN=IPCS.PROBLEM.DUMP
//SYSIN DD*
USERID=anonymous
PASSWORD=anonymous
TARGET_SYS=testcase.boulder.ibm.com
TARGET_DSN=wessamp.bigfile
WORK_DSN=wes.ftpout
CC_FTP=03
WORK_DSN_SIZE=50
DIRECTORY=/toibm/mvs/
PMR=12345.123.123
//
```

Interactions and dependencies

- Software Dependencies
 - None
- Hardware Dependencies
 - The Encryption function provided by the CPACF, DES/TDES Enablement is available on processors starting with the z990 (2084) and z890 (2086)

Migration and coexistence considerations

- If you have previously used the PDUU, shipped as the MTFTPS stand-alone program from www-01.ibm.com/support/docview.wss?uid=isg3T1011823, you must remove it prior to migrate to z/OS V1R13 because this utility is included in z/OS V1R13 by default.

Installation

- Must properly configure z/OS Communications Server to use the FTP client program. See the topic on Transferring files using FTP in z/OS Communications Server: IP Configuration Guide.
- AMAPDUPL resides in SYS1.MIGLIB (which is a data set in the LNKLIST concatenation), so a STEPLIB DDNAME is not necessary to invoke AMAPDUPL (compared to the earlier MTFTPS tool)
- Find complete description of the AMA messages in z/OS MVS System Messages, Vol 1 (ABA-AOM)

Session summary

- PDUU:
 - The Problem documentation Upload Utility (AMAPDUU) is included in the z/OS operation system.
 - It shortens transmission time for very large data sets to speed up the process of sending problem related materials from customers' sites to IBM.
 - You can encrypt the data sets.

Appendix - References

- Publications
 - z/OS MVS Diagnosis: Tools and Service Aids (GA22-7589)
 - z/OS MVS System Messages Volume 1 (ABA-AOM) (SA22-7631)