Data Management - Jes

Data Management

- Data Management
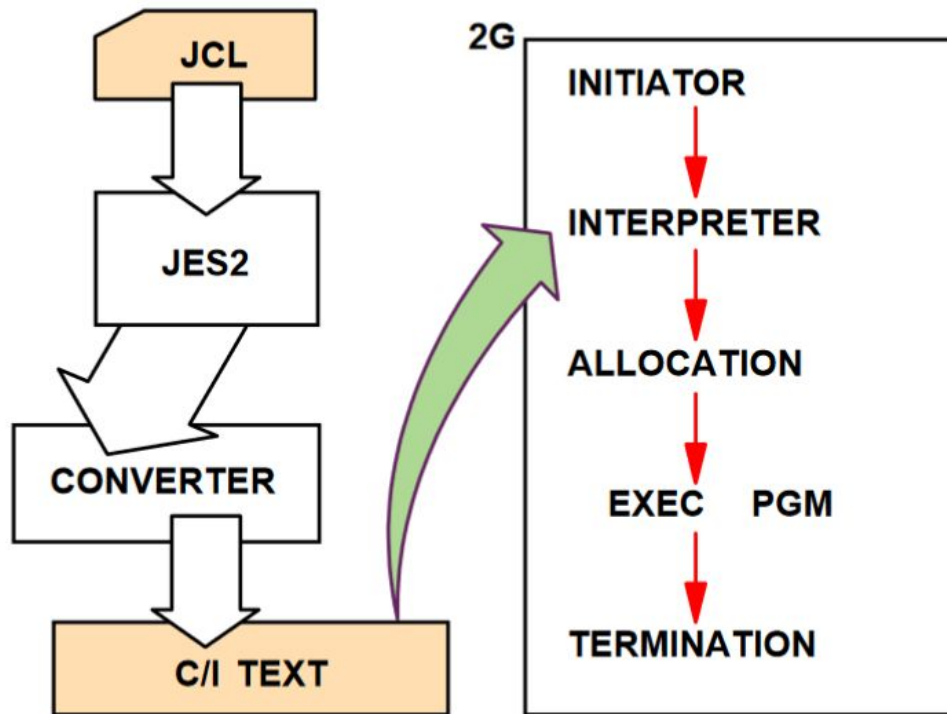- Catalog Processing
- DASD Volume Organization
- Allocating New Non-SMS DASD Data Sets
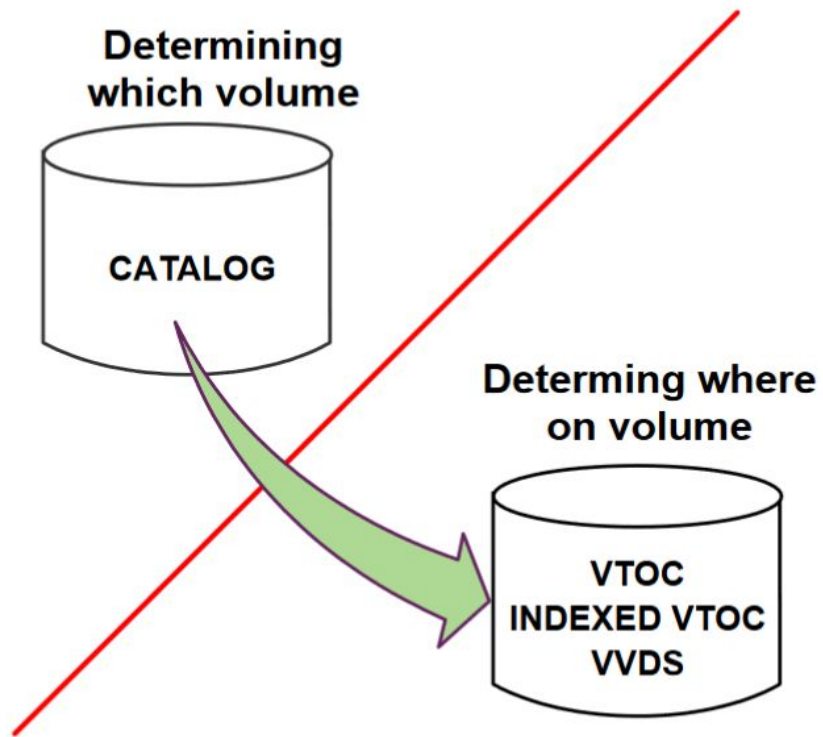- SMS Facilities
- Data sets and files
- Data set support functions

Job Flow Review

Data Location

Catalog Processing

Data Management

Catalog Processing

DASD Volume Organization

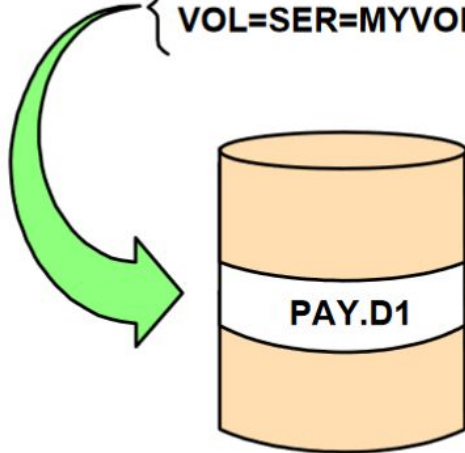Allocating New Non-SMS DASD Data Sets

SMS Facilities

Data sets and files
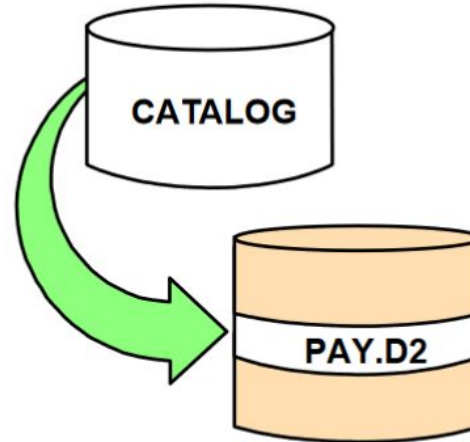
Data set support functions

Data Set Location

UNCATALOGED

```
//   DD        DSN=PAY.D1
          DISP=OLD
          UNIT=SYSDA
          VOL=SER=MYVOL
```
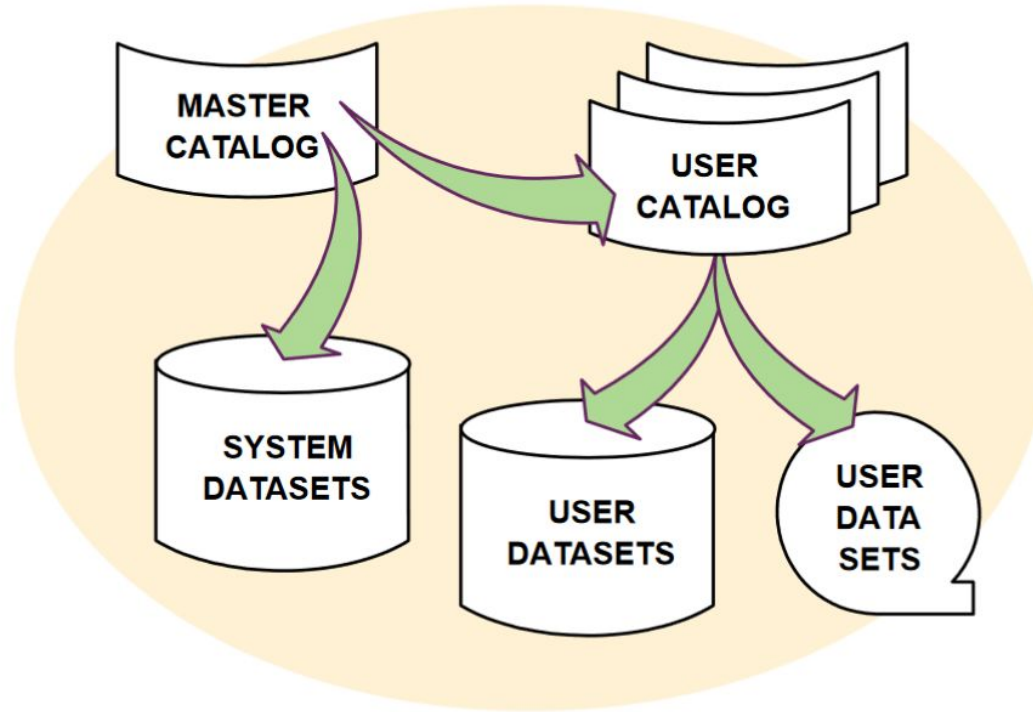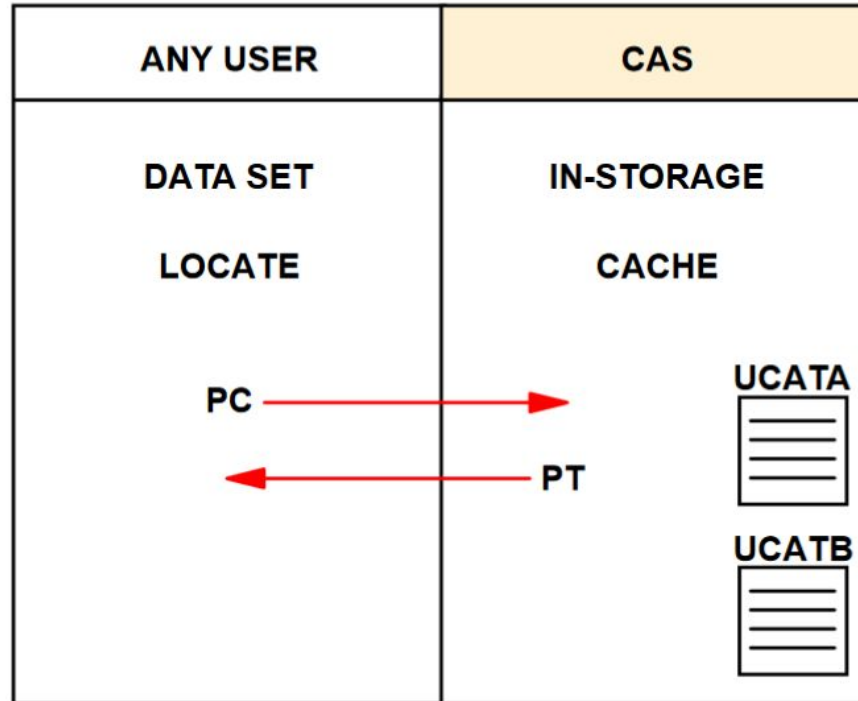
PAY.D1

CATALOGED

```
//   DD        DSN=PAY.D2
          DISP=OLD
```

CATALOG

PAY.D2

Master and User Catalogs

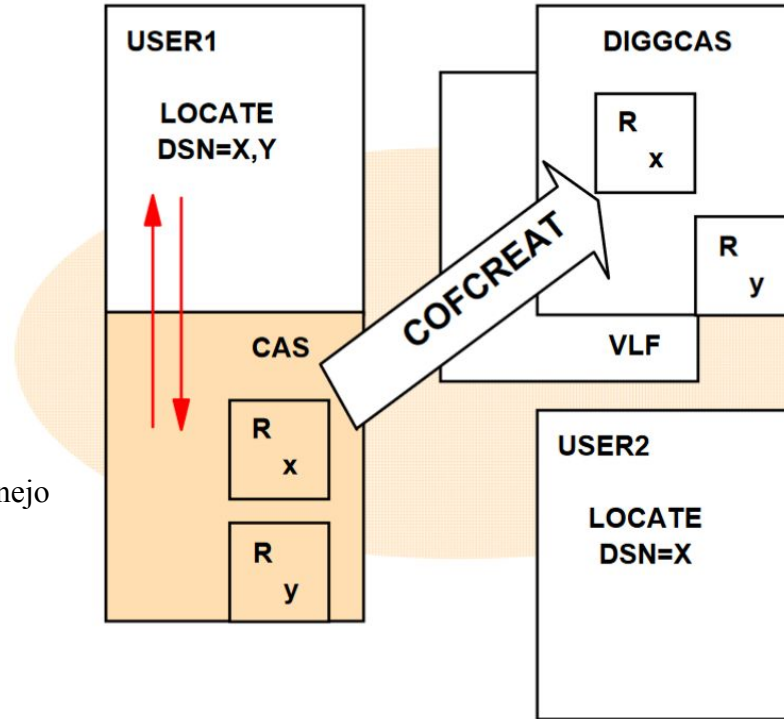# Catalog Address Space Processing

PC: Program Call
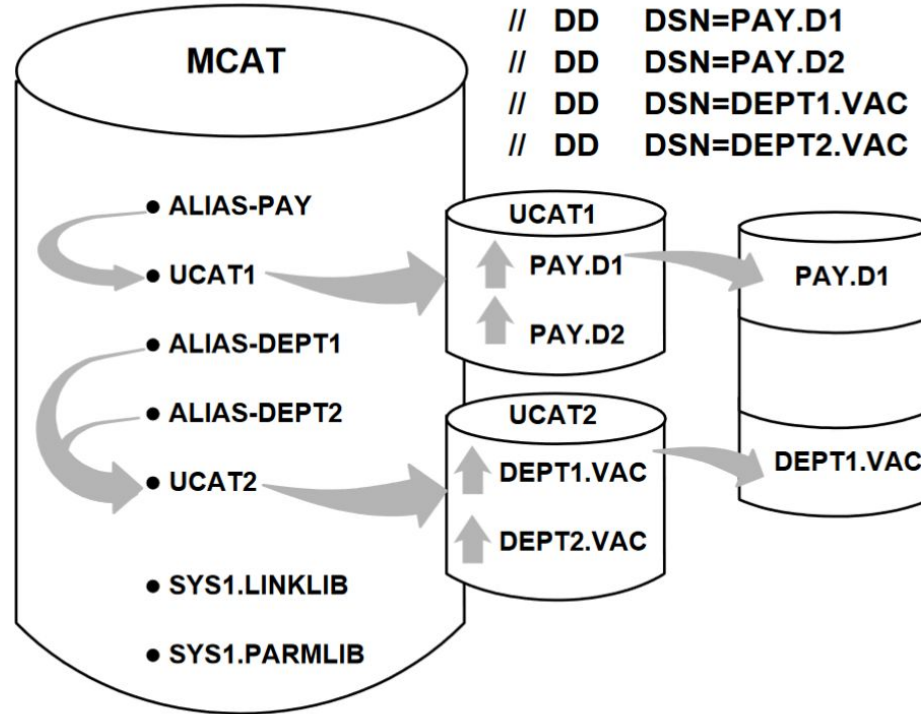PT: Program Transfer

CAS: Data Space Processing

COFCREAT: Macro; allows to add an object, to a class of VLF objects.
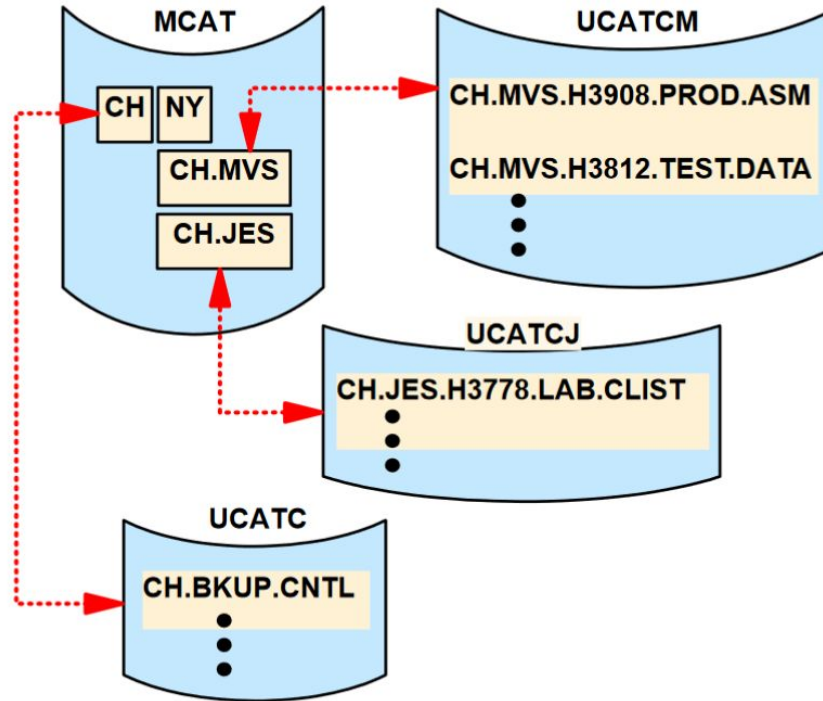**DIGGCAS:** Data-space de VLF, para manejo de Catalogos.
(Data spaces that begin with "D" contain objects; Data spaces that begin with "C" contain control information). (VLF Dataspaces (**D J,VLF**).
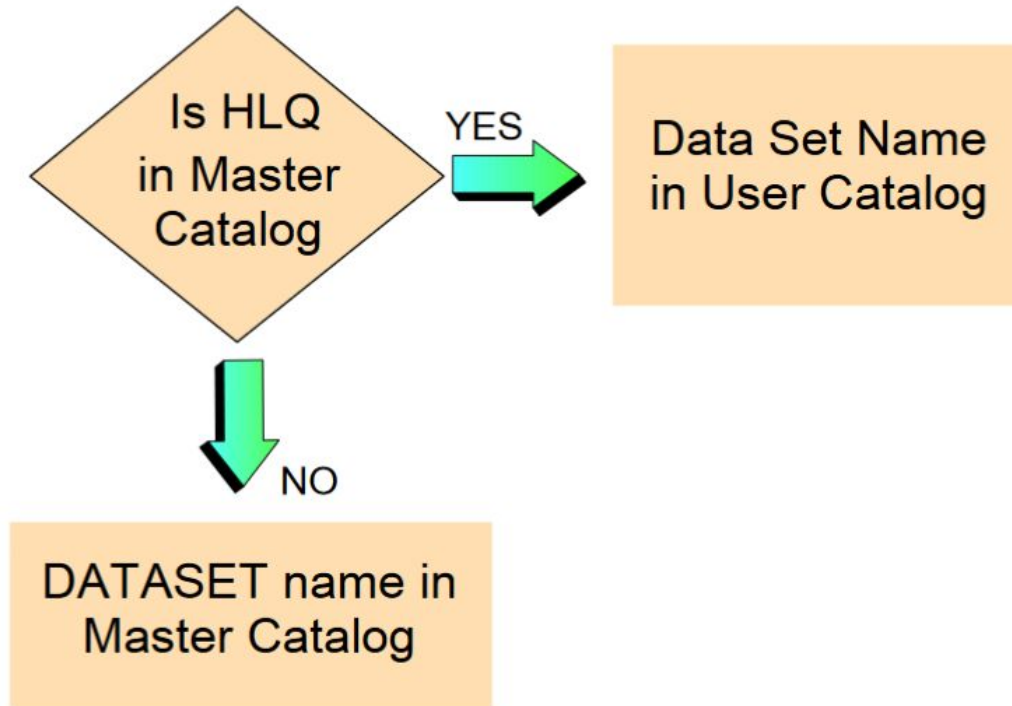
Using Aliases

Multilevel Alias

Catalog Search Order

DASD Volume Organization

Data Management
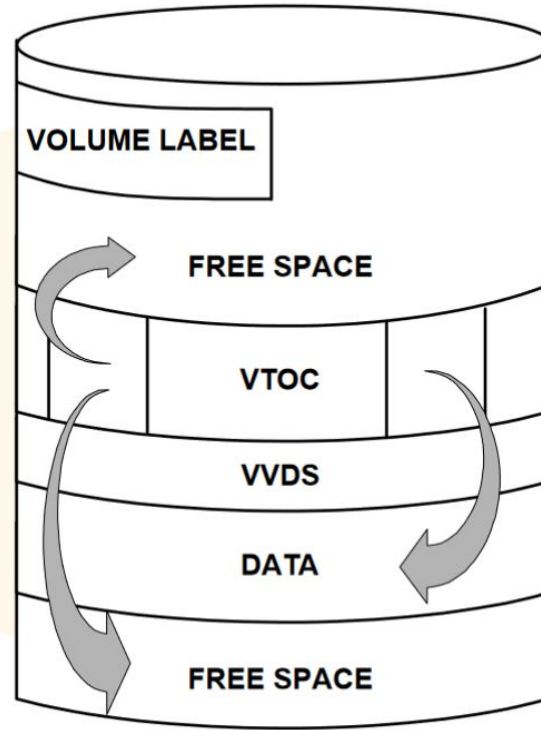
Catalog Processing

DASD Volume Organization

Allocating New Non-SMS DASD Data Sets

SMS Facilities

Data sets and files
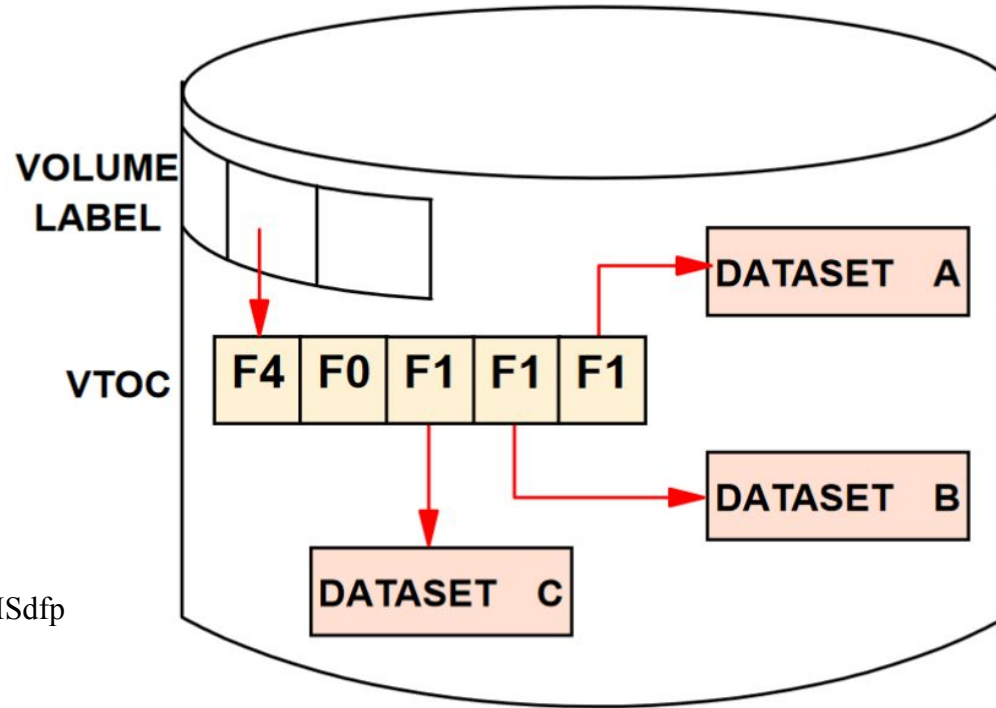
Data set support functions
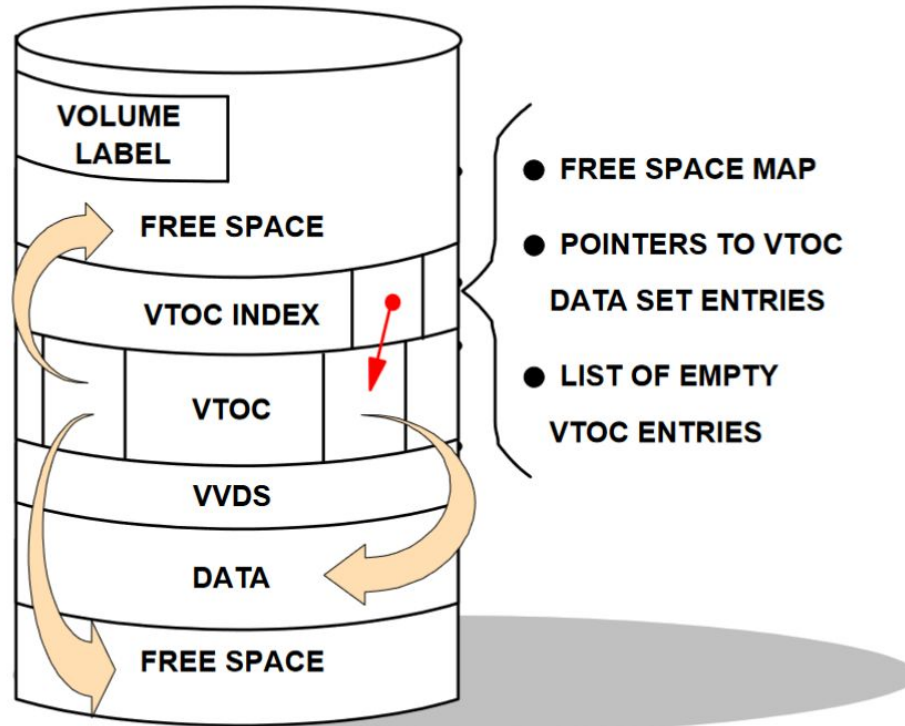
DASD Organization

Volume Table of Contents

(Vtoc DSCB, Format-4; en DFSMSdfp
Advanced Services).
(Utility usado: IEHLIST).

Indexed VTOC Structure

Allocating New Non-SMS DASD Data Sets

Data Management

Catalog Processing

DASD Volume Organization

Allocating New Non-SMS DASD Data Sets

SMS Facilities

Data sets and files

Data set support functions

Unit Names

Specific Device Number:

UNIT =/5A0 or **UNIT=5A0**   (3-digit or
UNIT =/15A0   4-digit hex number)

Generic Device Type:

UNIT = 3390

3390 Model 1
3390 Model 2
3390 Model 3
3390 Model 9

(Unit-3390, comprende también a: 3390-27;
3390-54; 3390-A).

Unit Names - Esoteric

Generic Device Types	3380				3390			
Esoteric Group Name		SYSDA						
		PRODDSK				TESTDSK		
Specific Device Number	180	181	182	183	190	191	192	193

UNIT = **SYSDA**

DASD Processing
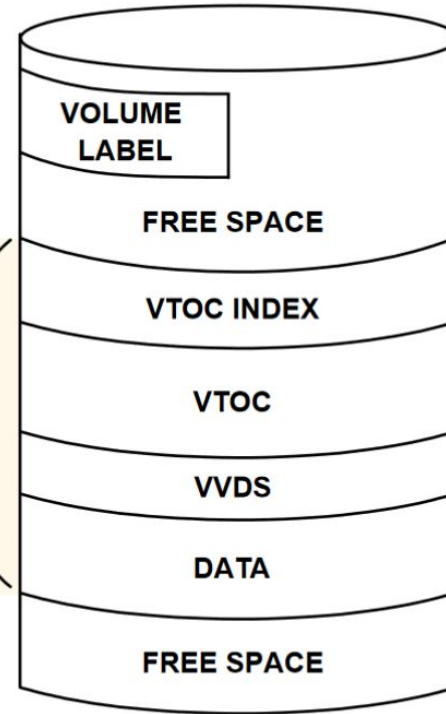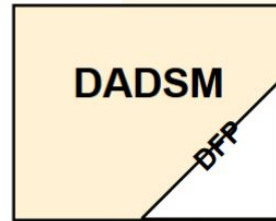
DADSM: Direct Device Space Management.

SMS Facilities

Data Management

Catalog Processing

DASD Volume Organization

Allocating New Non-SMS DASD Data Sets

➡ SMS Facilities

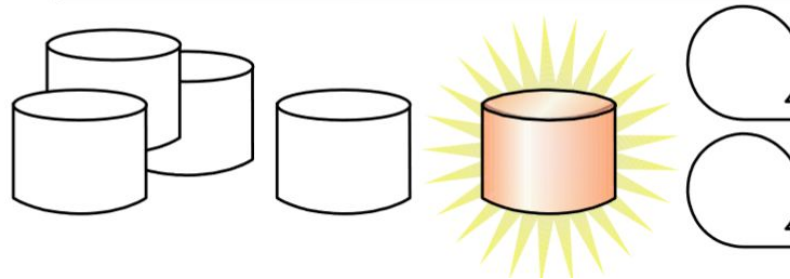Data sets and files

Data set support functions

SMS DASD Data Set Allocation
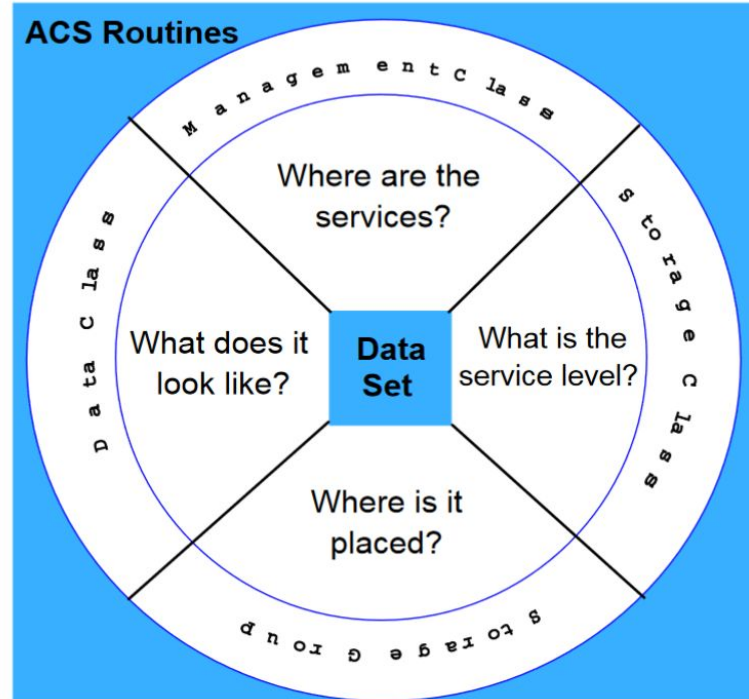

DEFINING A NEW DATA SET
(SMS)

```
//DD1   DD      DSN=PAY.D3,
//              DISP=(NEW,CATLG)
```

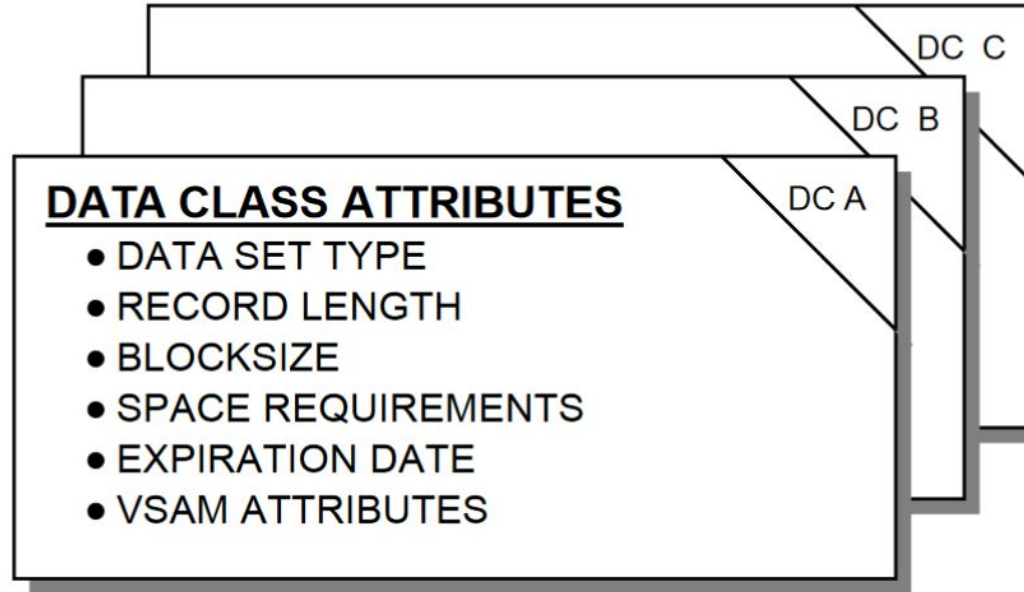STORAGE MANAGEMENT SUBSYSTEM

z/OS

Storage Management Subsystem

Data Classes

DATA CLASS ATTRIBUTES
- DATA SET TYPE
- RECORD LENGTH
- BLOCKSIZE
- SPACE REQUIREMENTS
- EXPIRATION DATE
- VSAM ATTRIBUTES

DC A

DC B

DC C

Where is it placed?

Automatic Class Selection Routines

```
1)  IF LLQ = ASM, OBJ, CNTL.

       THEN DATACLAS = DCFBO

2)  IF LLQ = LOAD, LIB

       THEN DATACLAS = DCFLOAD
         ●

         ●

         ●

         ●
```
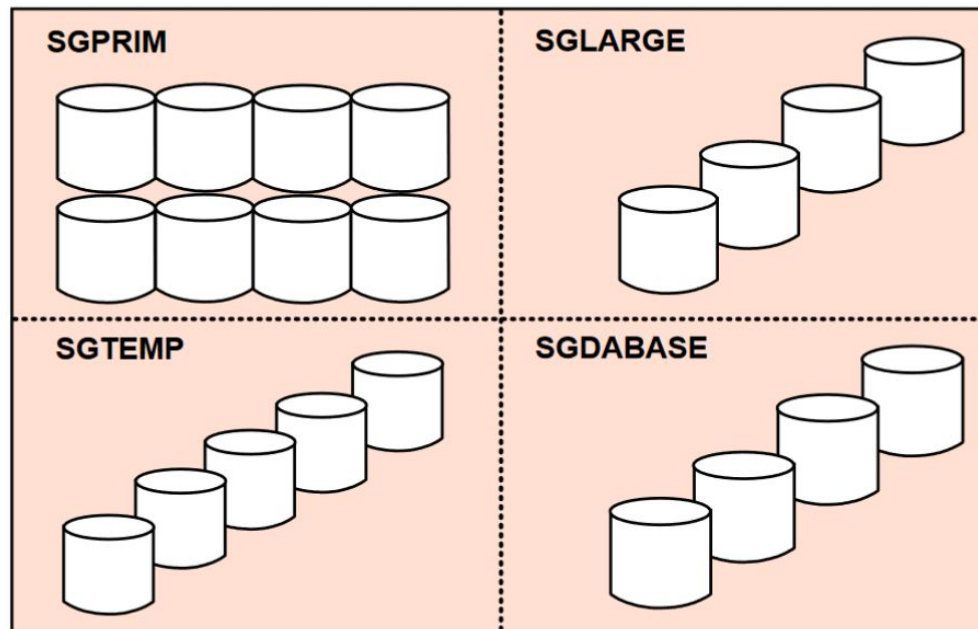
DATA CLASS ACS ROUTINE

Storage and Management Classes
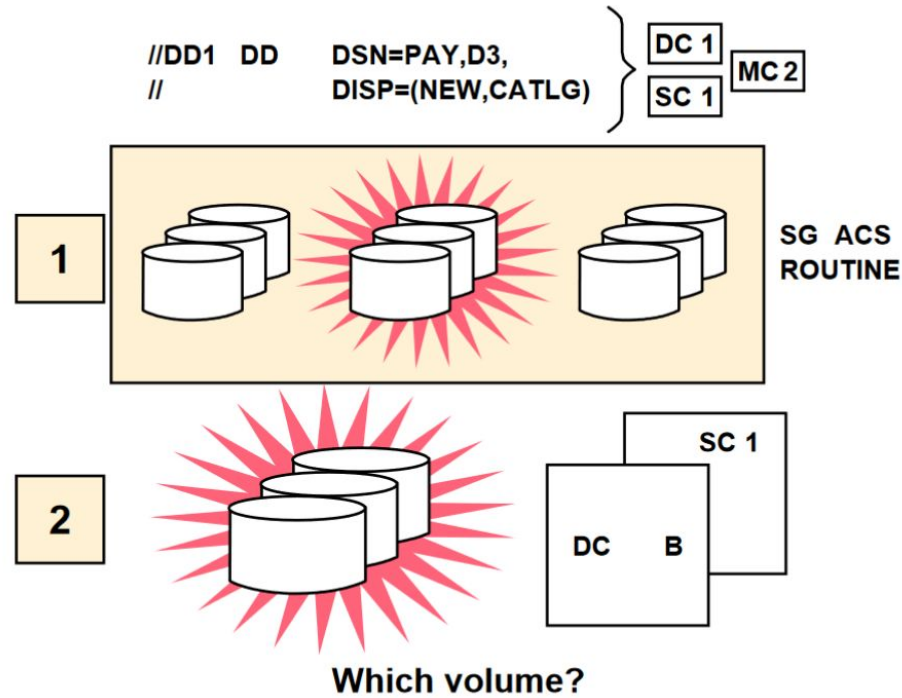
Storage Group

SGPRIM SGLARGE SGTEMP SGDABASE
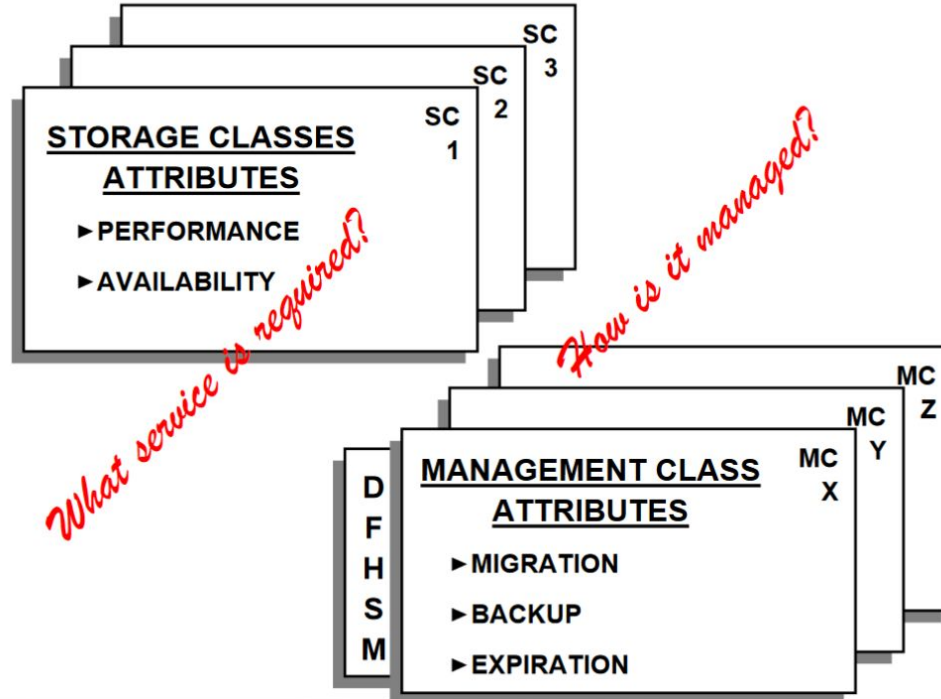
Where is it placed?

SMS Processing

(Storage-group).

Data sets and files

Data Management

Catalog Processing

DASD Volume Organization

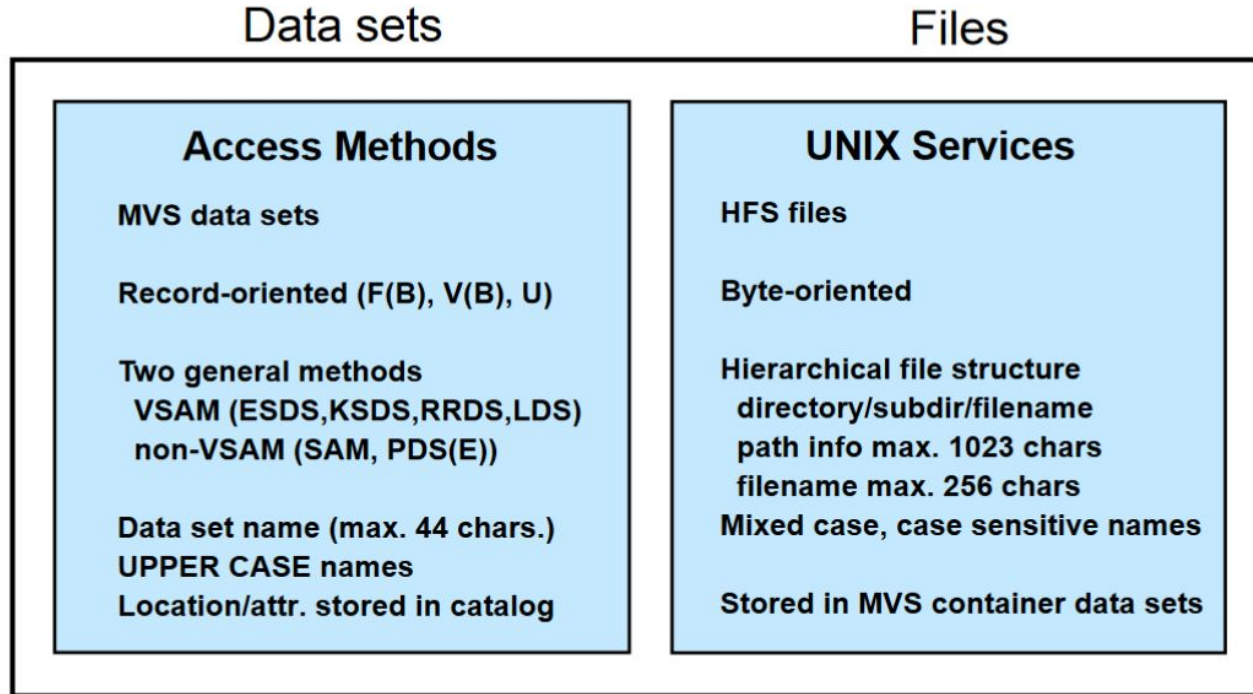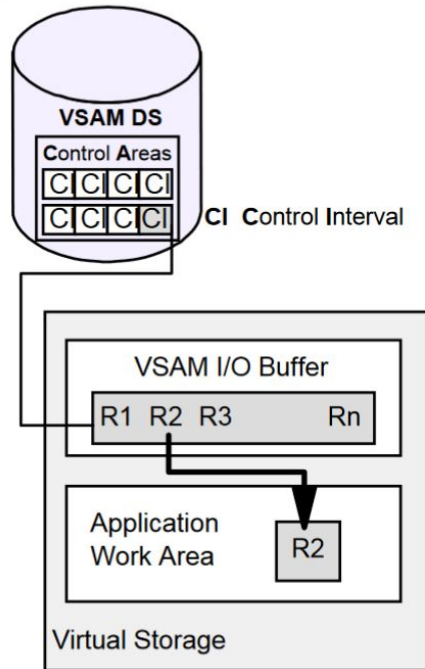Allocating New Non-SMS DASD Data Sets

SMS Facilities

Data sets and files

Data set support functions

Data sets and files in z/OS and OS/390

Data sets

Access Methods

MVS data sets

Record-oriented (F(B), V(B), U)

Two general methods
  VSAM (ESDS,KSDS,RRDS,LDS)
  non-VSAM (SAM, PDS(E))

Data set name (max. 44 chars.)
UPPER CASE names
Location/attr. stored in catalog

Files

UNIX Services

HFS files

Byte-oriented

Hierarchical file structure
  directory/subdir/filename
  path info max. 1023 chars
  filename max. 256 chars
Mixed case, case sensitive names

Stored in MVS container data sets

VSAM data sets

(SG24-6105)
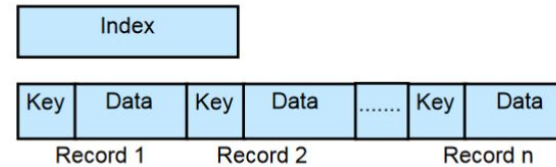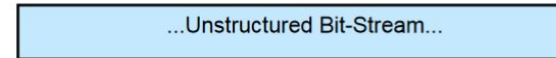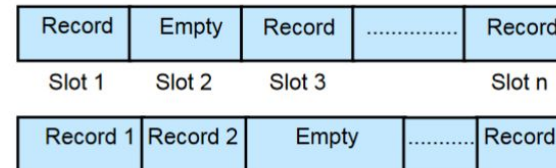
Sequential and partitioned data sets

Directory Entries

A	B	C	D	Free Space

Member C

Member B	Space of deleted Member

Member D

Member D	Space of deleted Member

Member A

Member A	Free Space

Partitioned Data Set

Record 1
Record 2
Record 3
Record 4
Record 5
Record 6
Record 7
Record n

Sequential Data Set

Directory Entries for A, B, C, D	Member C
Member B	Member E
Member D	Member A
Free Space of deleted Member	Directory Entries for E, X
Member D	Member X
Free Space	Free Space
Free Space	Free Space

Partitioned Data Set / Extended

File Creation (en Unix-Services)

FILE CREATION (en Unix-Services):
//F   DD PATH='/u/tsojdoe/adir/my.file',
//   PATHMODE=(SIRWXU,
SIWGRP),PATHDISP=(KEEP,DELETE),
//   PATHOPTS=(OWRONLY,OCREAT,OEXCL)

Data set support functions

Data Management

Catalog Processing

DASD Volume Organization

Allocating New Non-SMS DASD Data Sets

SMS Facilities

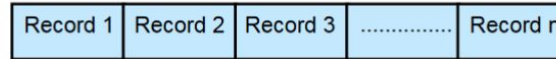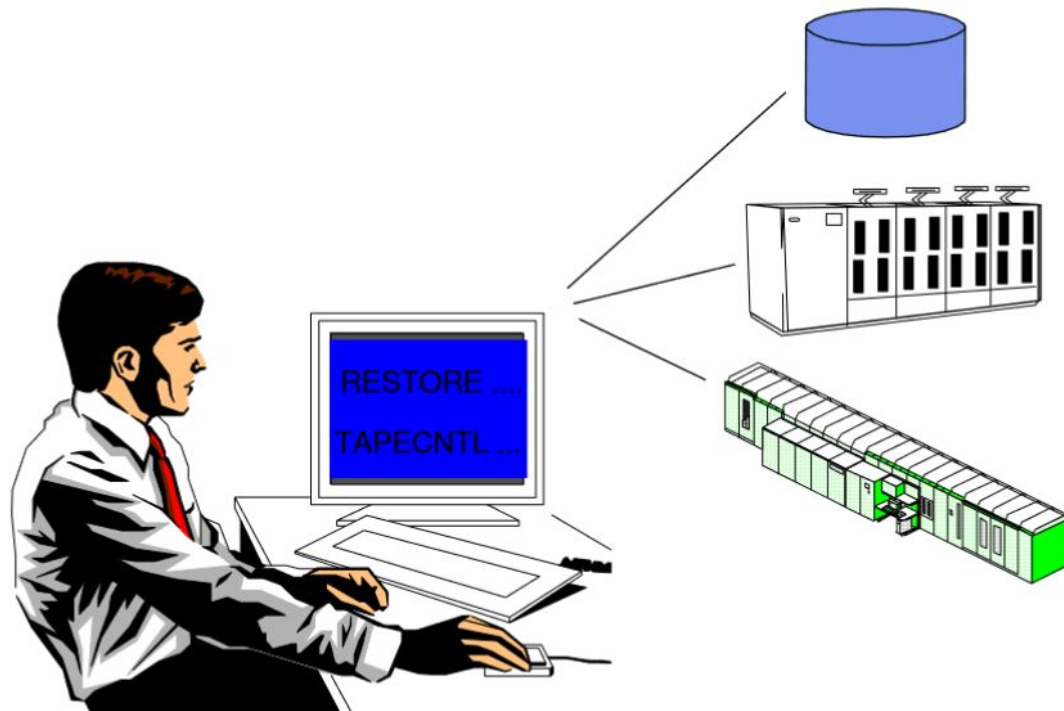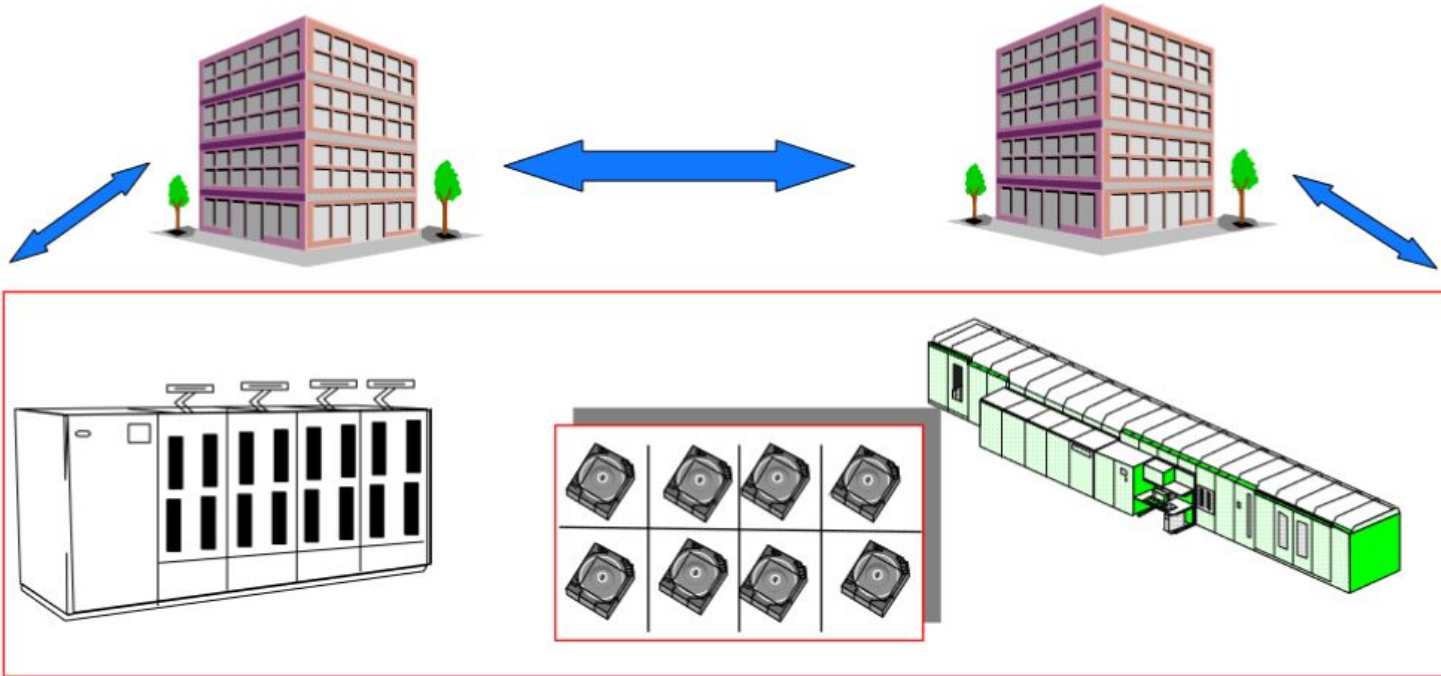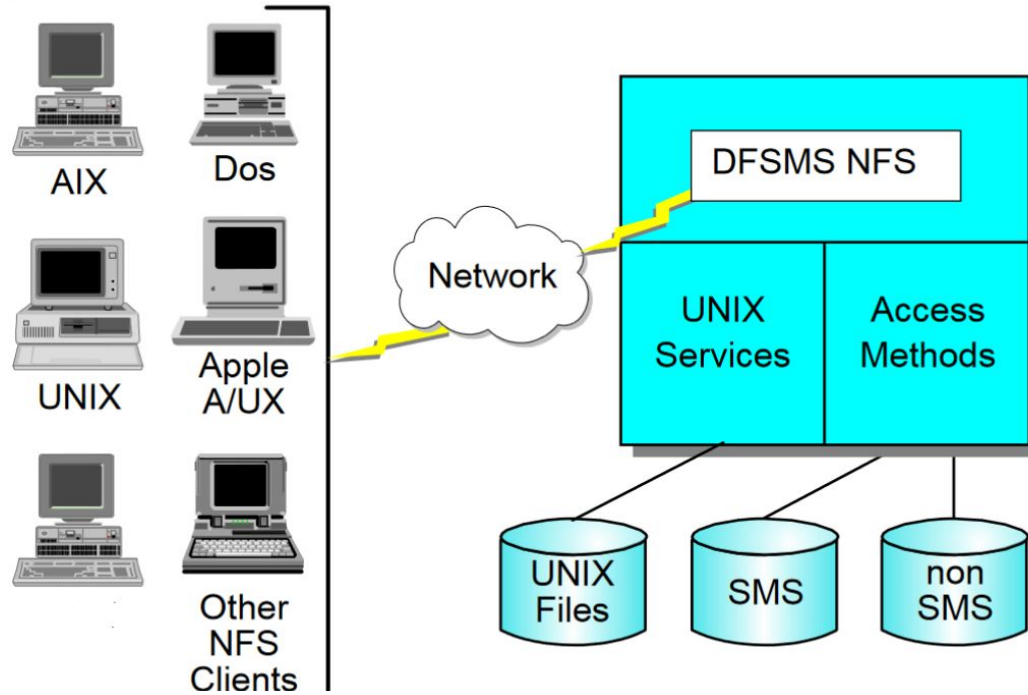Data sets and files

Data set support functions

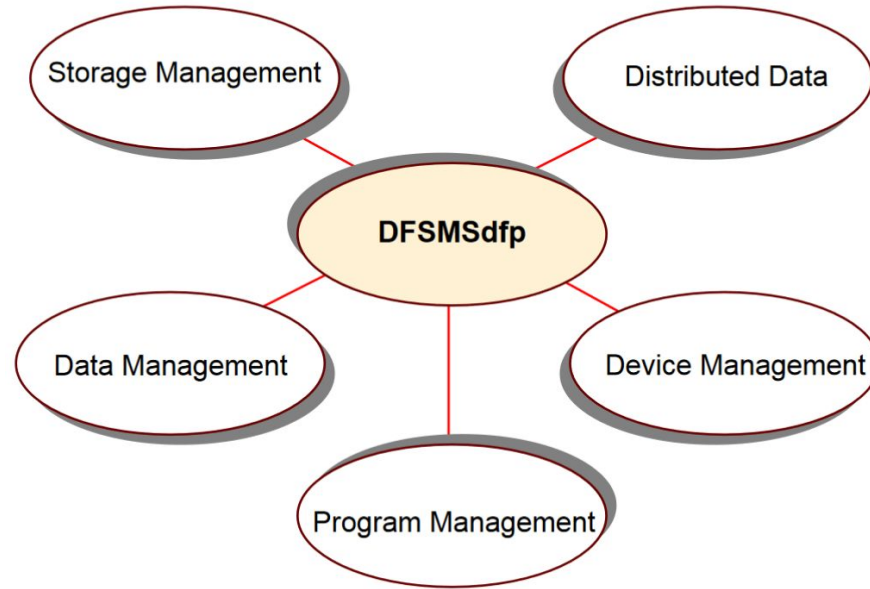# Data and Space Management: DFSMSdss

Tape Management: DFSMSrmm

DFSMS Network File System Server

DFSMS Data Facility Product

(Utiliario: **DFSMSdss** component of DFSMS; DFSMSdss is a direct access storage device (DASD) data and space management tool. DFSMSdss works on DASD volumes only in the z/OS environment).