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Utilization of Hostsystem´s Cross Sysplex Manager in the Swisscom IT Services

GSE z/OS Expertenforum

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Agenda

- Projects of consolidation
- Shared Dasd environment complex of problems
- What should be achieved with CSM ?
- General survey of CSM´s functionality
- Survey of the configuration of the data center in Berne
- Service Network for CSM
- Security in the Service Network
- Examples of application(s)
- Questions?

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Projects of consolidations

- Migration of the datacenters of the banks in Weinfelden and St. Gallen to the data center in Berne
- More steps of migration: Development, Customization and Production within 6 months
- Shared Dasd was as well intensively used in the banking- as in the telecommunications-enviroment for the transfer handling of data
- Software Maintenance und ~ Testing shall be managed in one central sysplex in future

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Shared Dasd

- Extensive implementation (IO-Gen-Limits, RACF)
- GRS-Restrictions (GRS-Star per Sysplex)
- Shared SMS-Pools, Shared ICF-Kataloge
- WLM-managed PAV-allocation (per Sysplex)

  Frequent destruction of VTOC-Indices
- Save / Recovery Policies
- GDPS Hyperswap and Shared Dasd?

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What shall be achieved with CSM ?

- Replacement of all defined Shared Dasd (ca. 1 TB)
- Central point for Software installation and distribution in the sysplexe of each customer with CSM
- Simple and transparent transfer handling procedures, also for geografically remote sysplexes
- Central analysis and evaluation of statistical datas after the sucessful transfer though CSM Transfer (SMF, DCOLLECT, RMM, …)
- Increasement of the security and integrity of data

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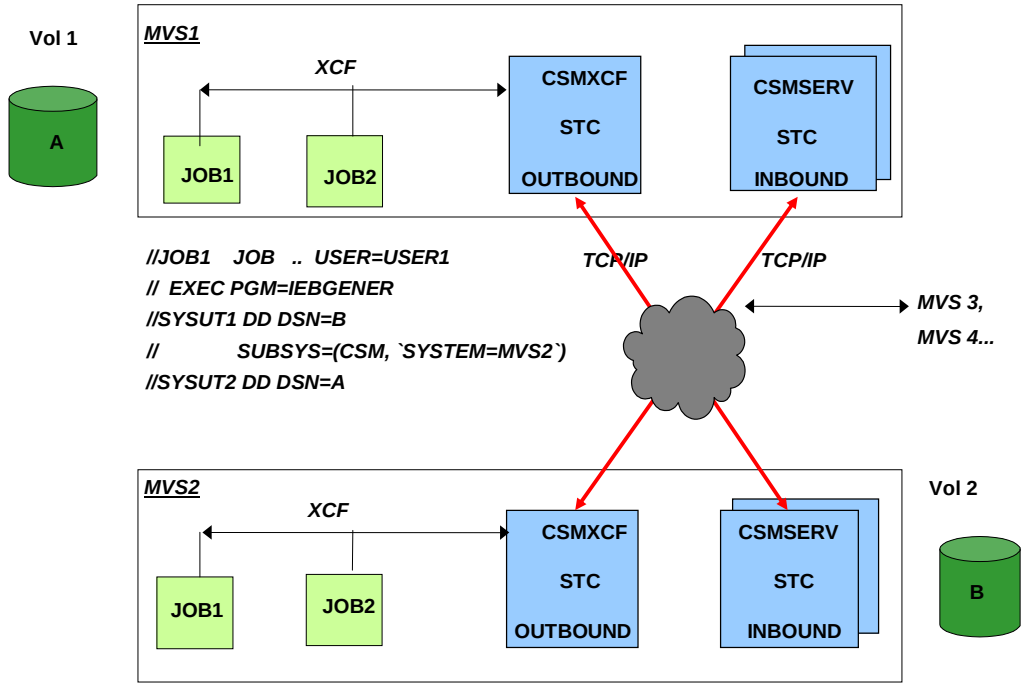
Survey of CSM´s functionality



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Survey of CSM´s functionality

- ISPF: Look & Feel like ISPF Menu 3
- Batch: SUBSYS-Parameter in the DD-Statement for sequentiell data
- Batch: Utility CSMUTIL supports IEBCOPY, IDCAMS und ADRDSSU, consequently all kinds of formats of data
- Remote processing of Tape Files
- REXX: Interfaces CSMEXEC and CSMASQL

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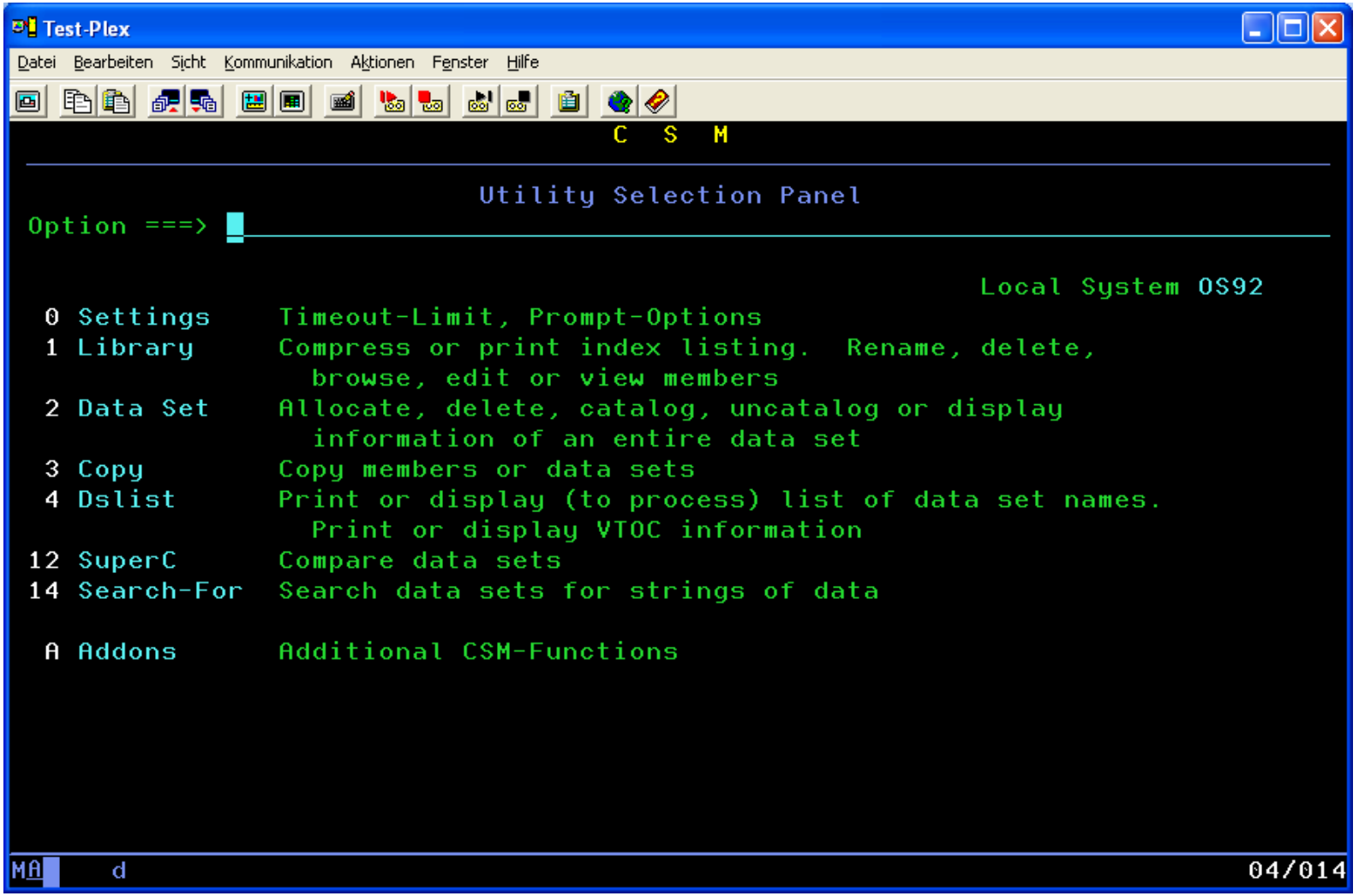

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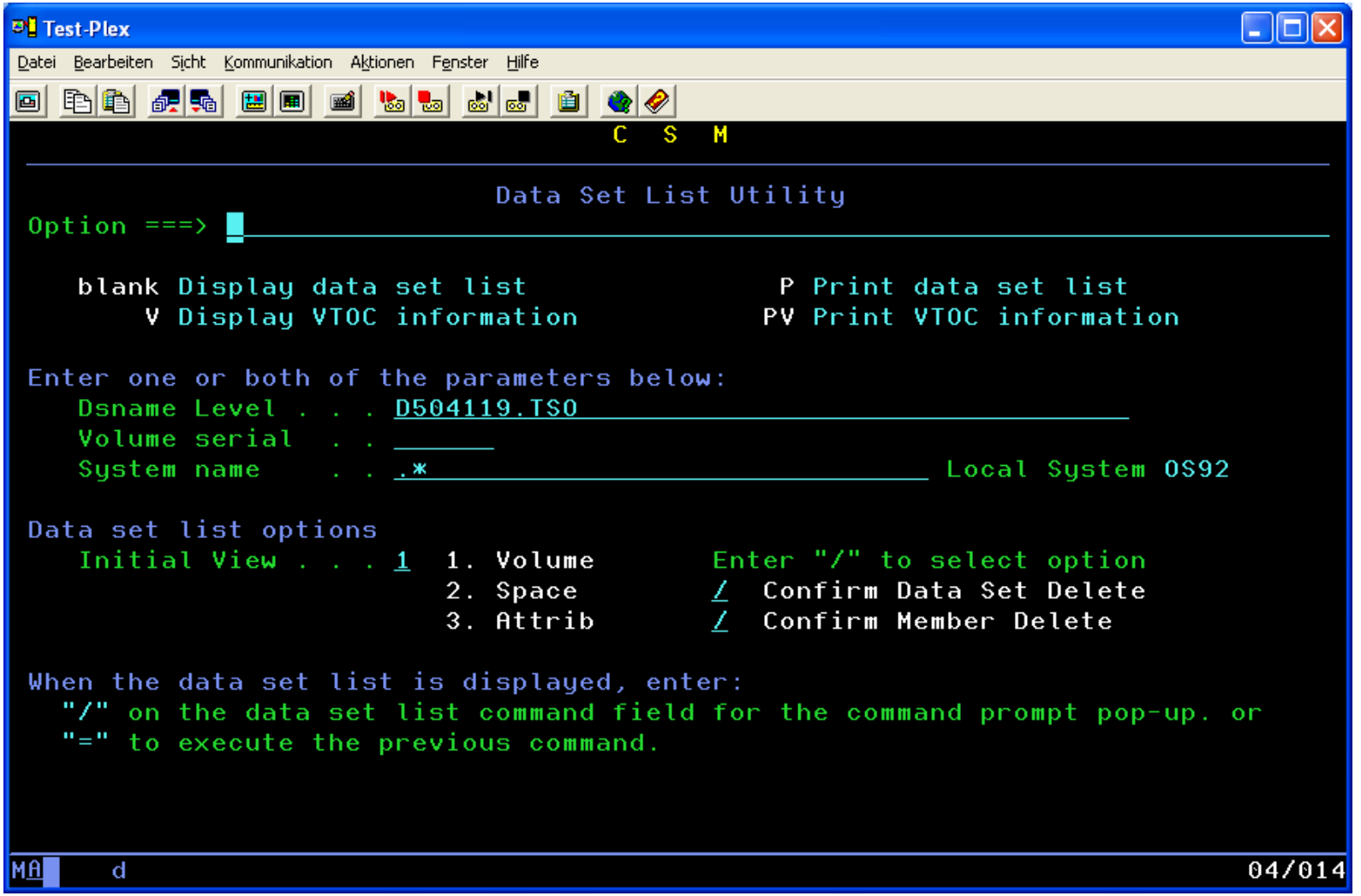

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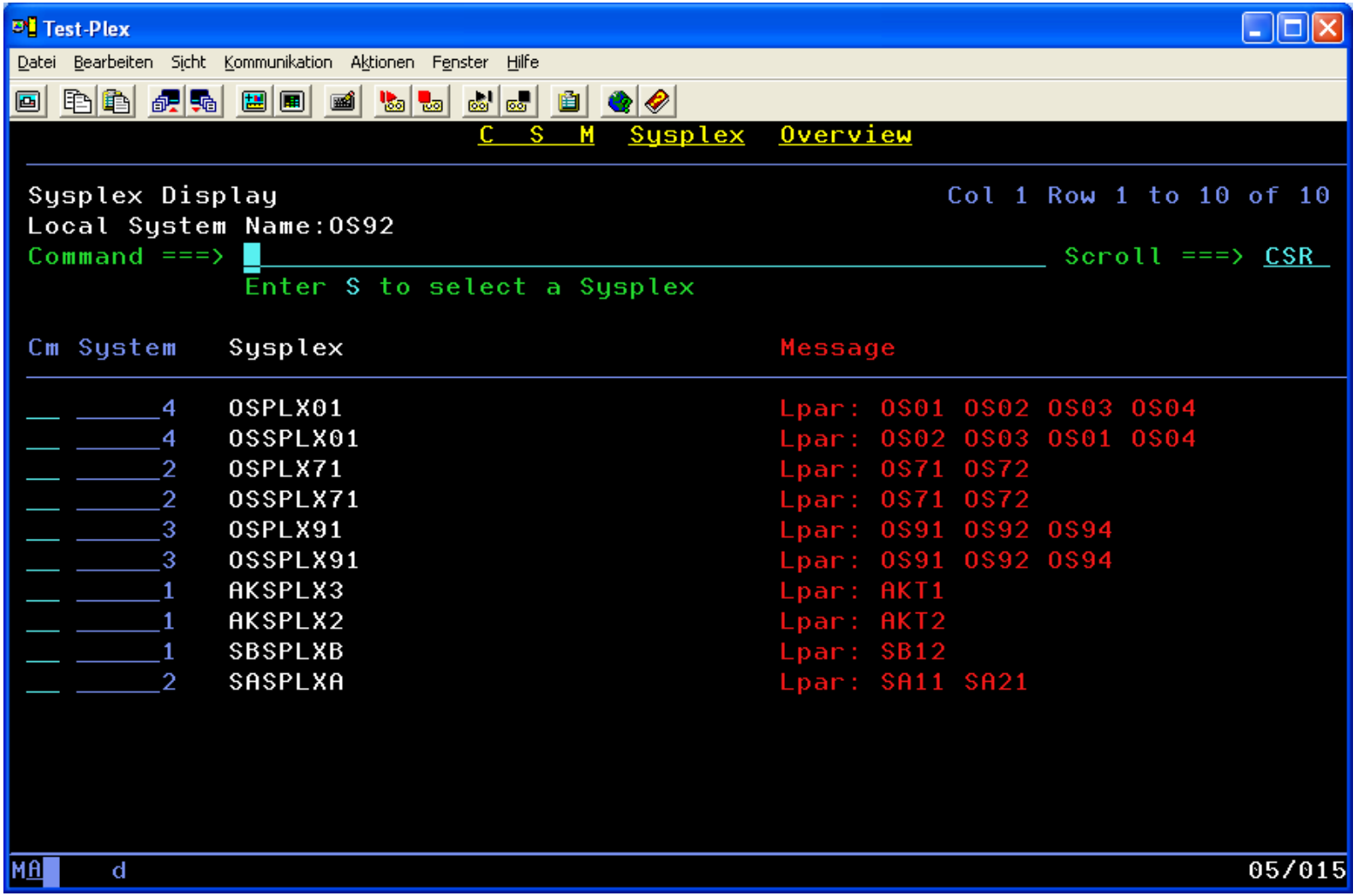

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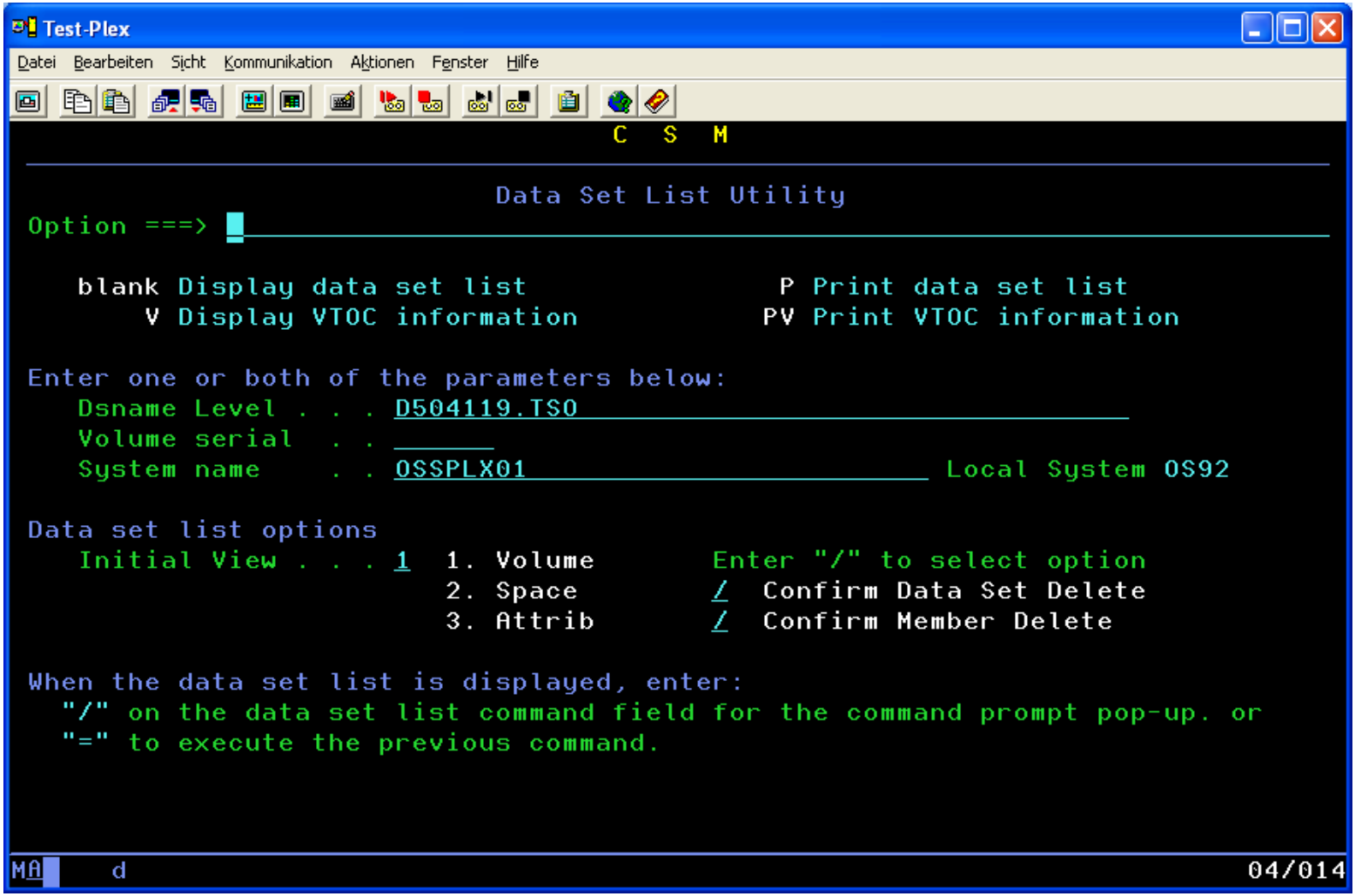

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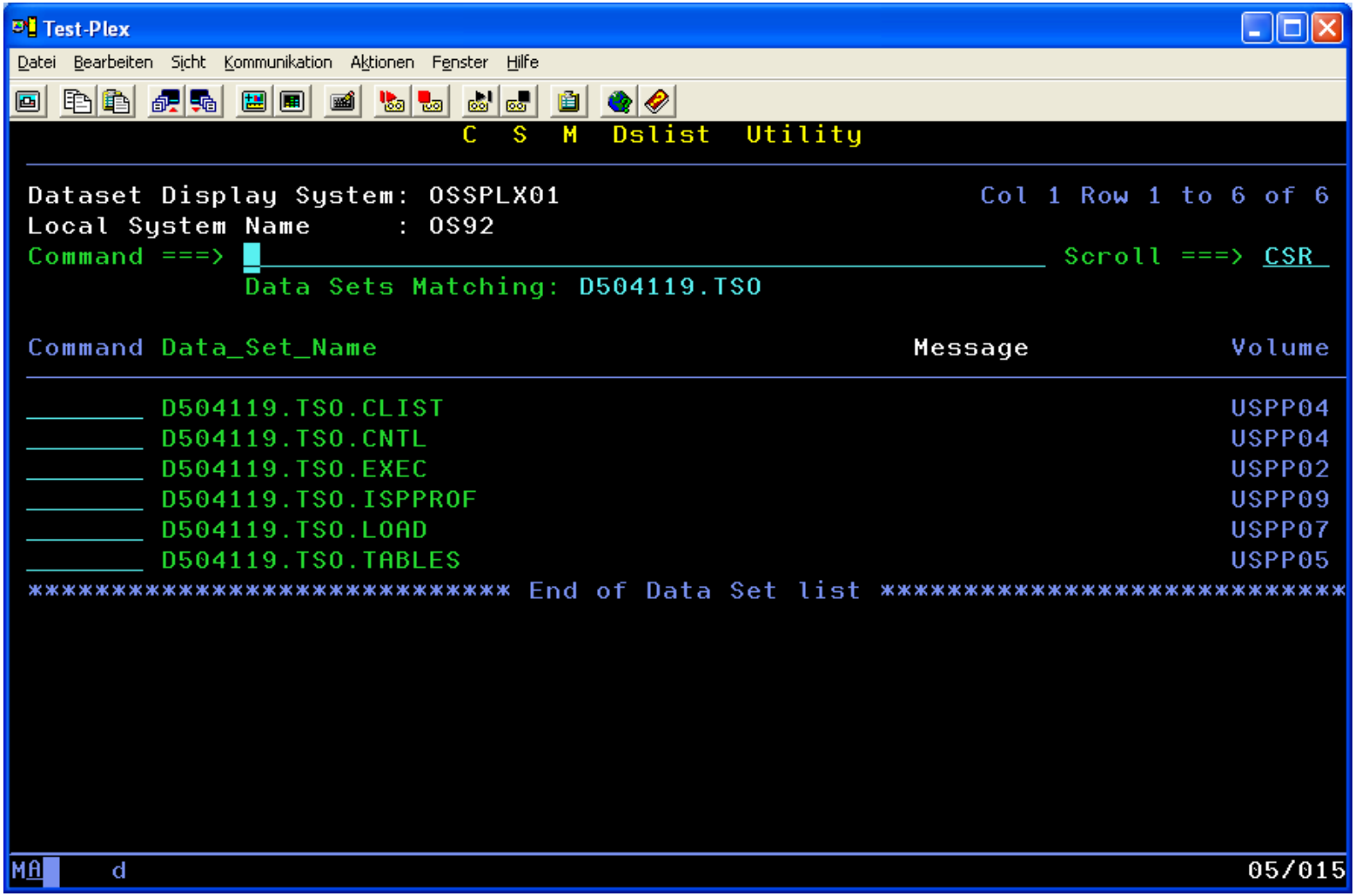
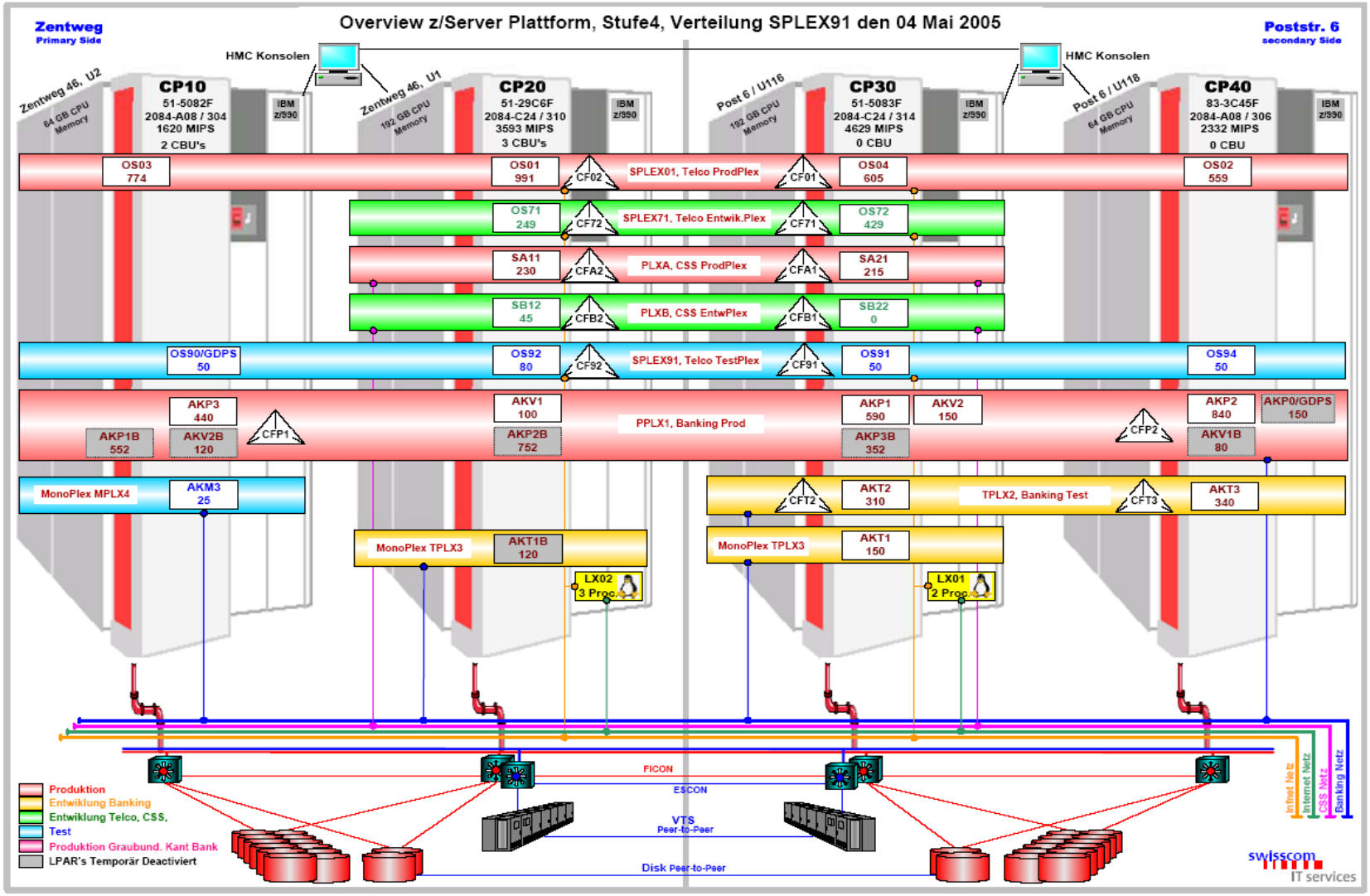


Hostsystem UB Cross Sysplex Manager



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Service Network

- Hypersocket Net in the server CP20 und CP30
- Each participating LPAR has ist own IP-Stack with restrictive chosen definitions of the PORT
- EZB.STACKACCESS controls the access to the Stack

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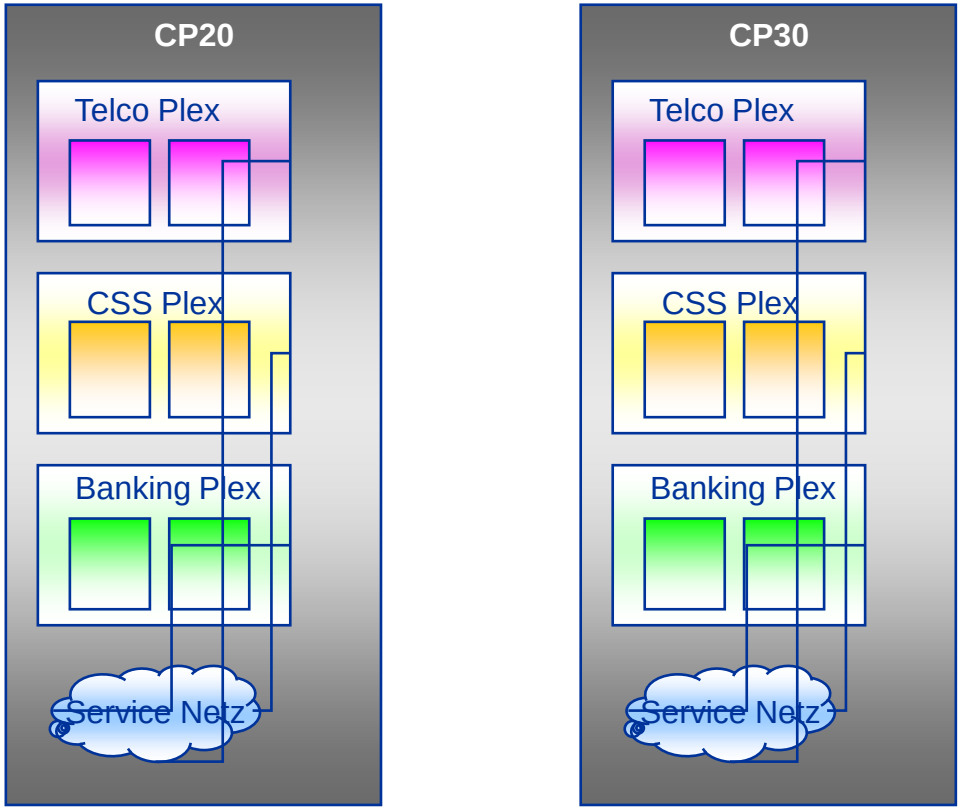
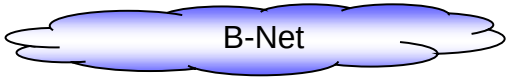
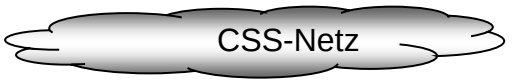
Sevice Netz







Hostsystem UB Cross Sysplex Manager

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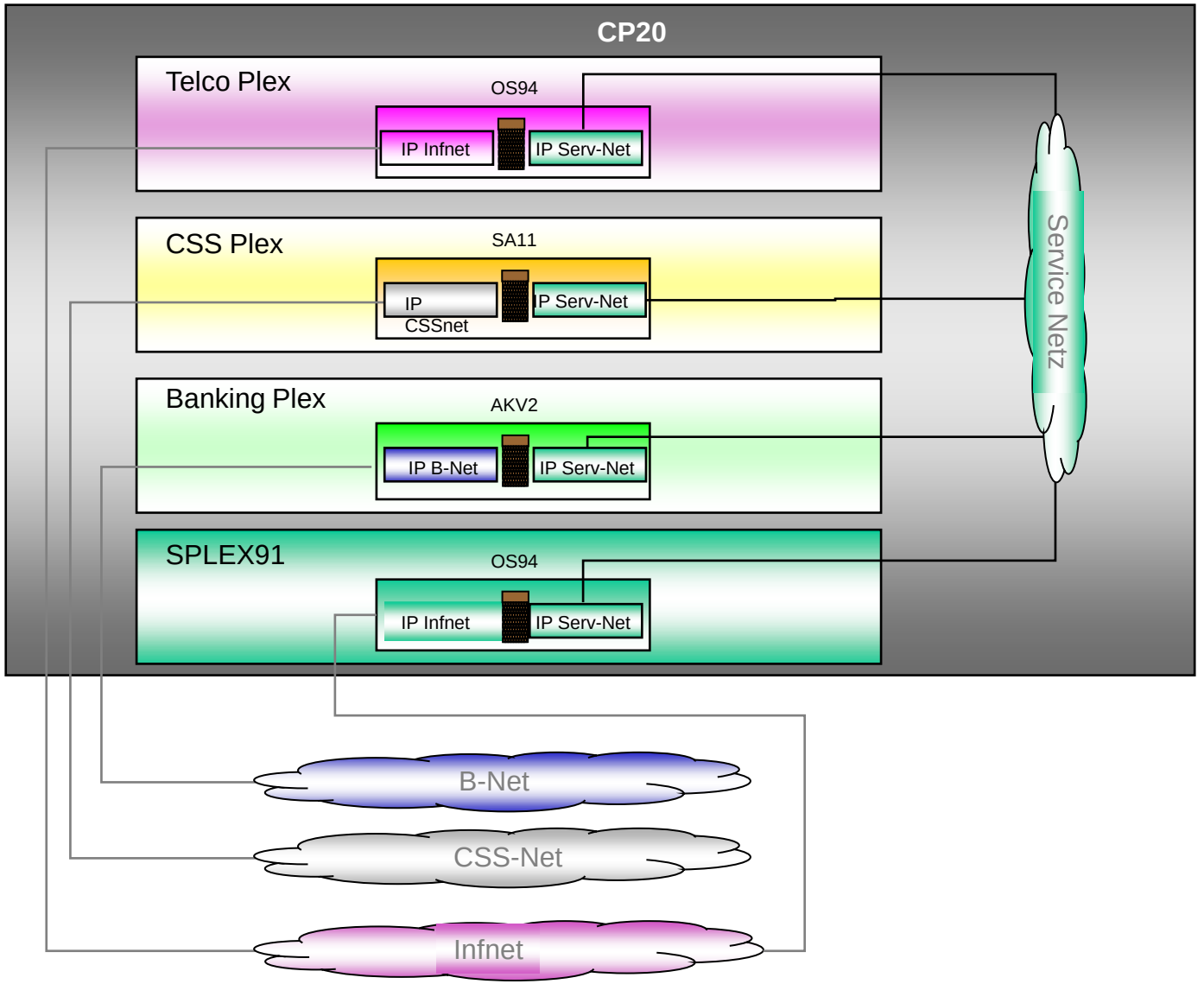

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Service Network Security

- Connections in the Service Network are only valid between the defined LPAR´s
- Only the defined Services and Ports are active in the Service Network (Port 7777 for CSM)
- Selective Authorisation of Access through SERVAUTH Class and EZB.STACKACCESS

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Security in the Service Network

- RACF Facility Classes control the use of CSM
- SUBSYS.CSM.SYSALL
- SUBSYS.CSM.LS.sysname
- SUBSYS.CSM.RR.rmtsys
- SUBSYS.CSM.LR.sysname
- SUBSYS.CSM.RS.rmtsys

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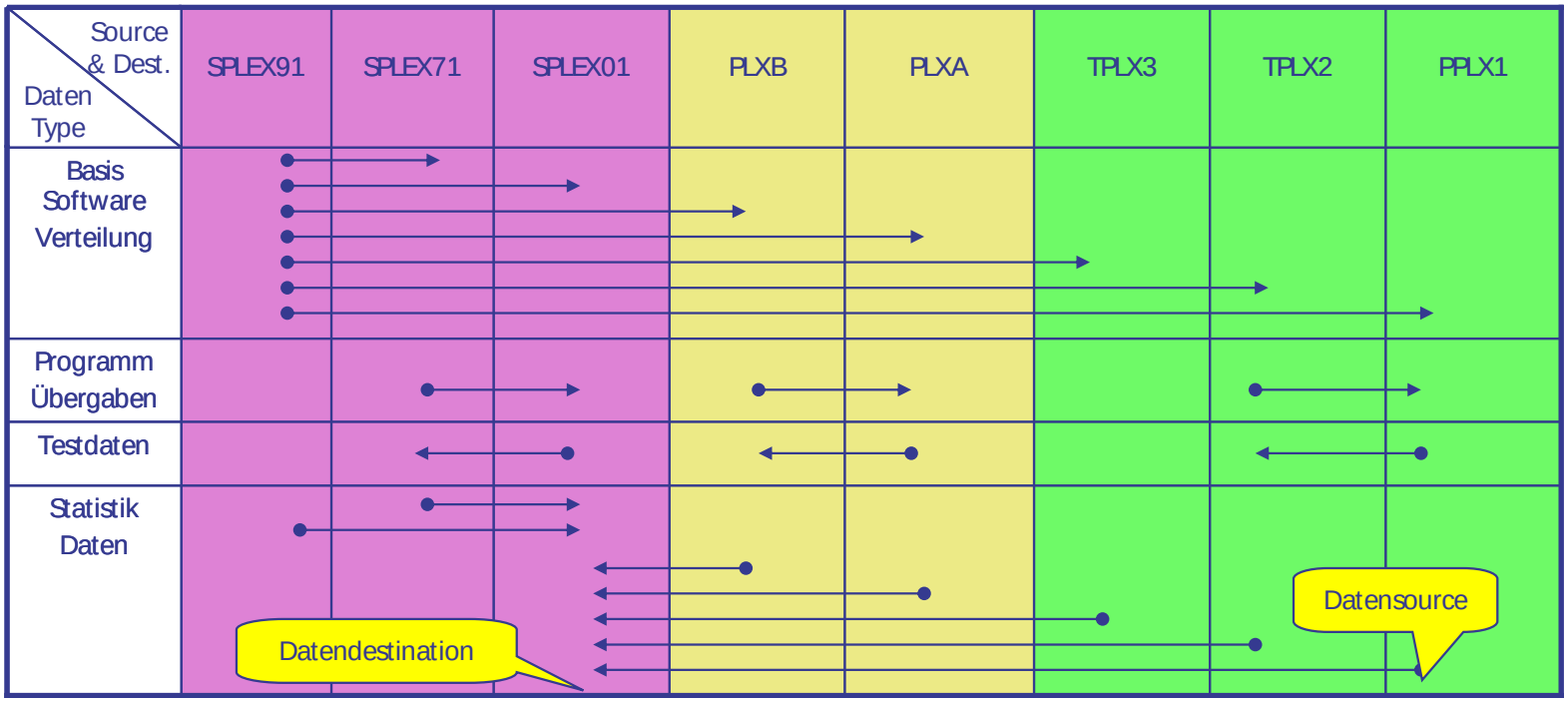
Data flow in the Service Network



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Example 1: BMC-Unload to P2P-VTS

```
//BMCUNLD  EXEC BMCADU,                                  <= Job runs in the Prod-Plex
//         MSGLVL='0',DPRF='DB0B',BPRF='P',
//         UTPROC='NEW/RESTART',
//         SYSTEM='DB0B'
//UNLOAD.SYSINBMC DD *
  SELECT * FROM P0GZ.TABART
//*-------------------------------------------------
//* UNLOAD PROD DATA
//*-------------------------------------------------
//SYSRC    DD DSN=GZP.RET.DP0GZABO.SABART.DATA(+1),
//            DISP=(NEW,CATLG,CATLG),
//            UNIT=P2PVTS,RETPD=365                  <= PEER TO PEER VTS Prod-Plex
//*-------------------------------------------------
//* LOAD TABLE CONTROL STATEMENTS
//*-------------------------------------------------
//SYSCNTL DD DSN=GZP.T5GZ.TABART.LCARD,              <= Disk-File Prod-Plex
//            DISP=(MOD,CATLG,CATLG),
//            SPACE=(CYL,(1,1),RLSE),
//            UNIT=SYSDA
```

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Example 1: BMC-Load from P2P-VTS

```
//BMCLOAD  EXEC BMCAMU,                                    <= Job runs in the Cust-Plex
//         DPRF='DB0Q',
//         UTPROC='NEW/RESTART',
//         DYN='Y',
//         BPRF='E',
//         SIZE='80M',
//         RESUME='NRPL',
//         DISCARD='1',
//         D2LQ='P0GZ',
//         D3LQ='TABART',
//         ORDER='YES',
//         DB2SYS='DB0Q'
//*-------------------------------------------------
//* LOAD DATA
//*-------------------------------------------------
//LOADDYN.SYSREC DD DSN=GZP.RET.DP0GZABO.SABART.DATA(0), <= PEER TO PEER VTS Prod-Plex
//        DISP=SHR,SUBSYS=(CSM,'SYSTEM=OSSPLX01')
//LOADDYN.SYSINBMC DD DSN=GZP.T5GZ.TABART.LCARD,         <= Disk-File Prod-Plex
//        DISP=SHR,SUBSYS=(CSM,'SYSTEM=OSSPLX01')
```

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Example 2: DSS Dump / Restore

```
//LOGDUMP  EXEC PGM=ADRDSSU,REGION=32M                  <= Dump runs in the Test-Plex
//SYSPRINT DD SYSOUT=*
//DUMPOUT  DD DISP=(NEW,PASS),AVGREC=M,SPACE=(1,(16,8),RLSE)
//FILTER   DD *
  INCLUDE(CIMS.PROD.**)
//SYSIN    DD *
  DUMP DATASET(FILTERDD(FILTER)) -
       OUTDDNAME(DUMPOUT) COMPRESS ADMIN -
       WAIT(2,2) CANCELERROR
/*
//LOGREST  EXEC PGM=CSMUTIL,PARM='CSM,ADRDSSU'          <= Restore runs in the Prod-Plex
//SYSPRINT DD SYSOUT=*
//SYSUT1   DD DSN=*.LOGDUMP.DUMPOUT,DISP=(OLD,DELETE)
//RMTUT1   DD SUBSYS=(CSM,'SYSTEM=OSSPLX01') ,
//         DISP=(NEW,DELETE),AVGREC=M,SPACE=(1,(16,8),RLSE)
//SYSIN    DD *
  RESTORE INDDNAME(RMTUT1) -
       DATASET(INCLUDE(**)) -
       ADMIN IMPORT CATALOG NSC NMC
       RENUNC(CIMP) REPLACEU -
       WAIT(2,2) CANCELERROR
/*
```

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What did we actually achieve with CSM?

- Approx. half of the Shared Dasd environment is already discharged (and we are still working on it!)
- The Software installationen is now centrally managed in a single test- and installationplex … rethinking has taken place!
- Simple and transparent handling procedures are realized in the local Hypersocket-Network.
- Statistical data will largely be generated with CSM directly in the processing remote-system (SMF, DCOLLECT, …)
- The security and integrity of data has been increased significantly

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Questions?