

Migrate SMP/E Environments into z/OSMF



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Welcome to z/OSMF training, Migrating SMP/E environments into z/OSMF.

Welcome

- Welcome to the z/OSMF training.
- Broadcom is more committed than ever to the Software Management experience and assisting clients to simplify the transition to z/OSMF.
- This course was designed to assist sites manage their software with z/OSMF.
- This session is about Migrating SMP/E Environments into z/OSMF.



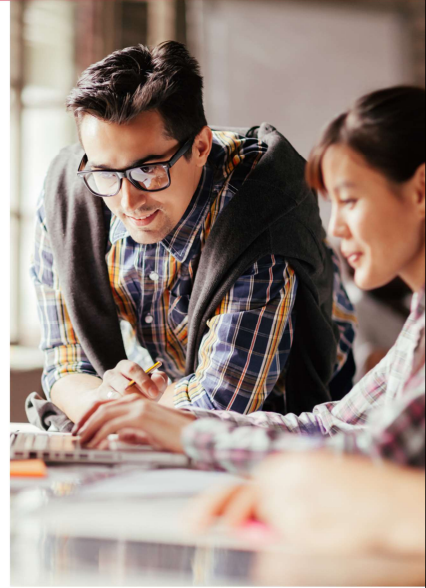
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Broadcom is committed to assisting clients to simplify their transition to z/OSMF Software Management of their mainframe software products. This is one of several courses to help clients install and maintain their software products using z/OSMF. This course covers migrating both Chorus Software Manager(CSM) and non CSM managed SMP/E environments to z/OSMF.

Course Summary

- Why migrate existing product software into z/OSMF?
- Download and Install the Broadcom migration tool package.
- Use the CSM2ZOSM REXX utility to migrate your CSM or SMP/E managed software as new z/OSMF software instances.
- Verify that the CSIs were migrated successfully using z/OSMF Software Management, Software Instances.



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This course will cover the following topics:

Why migrate existing SMP/e product environments into z/OSMF.

How to download and install the Broadcom migration tool package.

How to use the REXX migration utility to migrate both CSM managed and non-CSM managed SMP/e environments to z/OSMF

And How to use z/OSMF to verify successfully migrated SMP/E environments.

Why migrate existing product software into z/OSMF?

- Migrating all SMP/E environments into z/OSMF allows a site to manage all vendor product maintenance using a single and consistent application.
- After the migration process completes, sites can maintain new z/OSMF software instances using the z/OSMF Software Update function.
- z/OSMF avoids the need to have a different expert for every vendor, and facilitates the onboarding of new employees.
- Additionally, every mainframe customer will be part of the same community of users, all working with the same tool to accomplish a similar goal.

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Currently sites may use different methods or applications to manage product maintenance for several products from different vendors, with z/OSMF sites can use a single application to install and manage all mainframe products.

After using the Broadcom migration tool package, all migrated SMP/E environments can be managed using the z/OSMF Software Update function.

Use of a single application like z/OSMF allow sites to avoid having a different expert to maintain each vendor's mainframe products.

Also, by all mainframe sites utilizing the same z/OSMF application, a community of users can be formed to share and discuss common software maintenance experiences and best practices.

Download and Install the Broadcom migration tool package

Download the [migration tool package](#) MigrationTool.zip:

<https://techdocs.broadcom.com/us/en/ca-mainframe-software/traditional-management/mainframe-common-maintenance-procedures/1-0/getting-started/z-osmf-requirements/migrate-smp-e-environments-into-z-osmf.html>



Google: 'techdocs CSM2ZOSM'

The package includes the following members:

- **CSMRPSQL** (JCL) JCL to retrieve CSM CSI information to the MIGROUT output data set. **Note:** this JCL is used only for CSM users.
- **CSM2ZOSM** (REXX) REXX exec that Reads the MIGROUT output data set and calls z/OSMF REST APIs to register software instances into z/OSMF
- **LISTTGZ** (REXX) Contains a procedure that is called from CSM2ZOSM to list the target zones that are registered when CSM2ZOSM is executed.

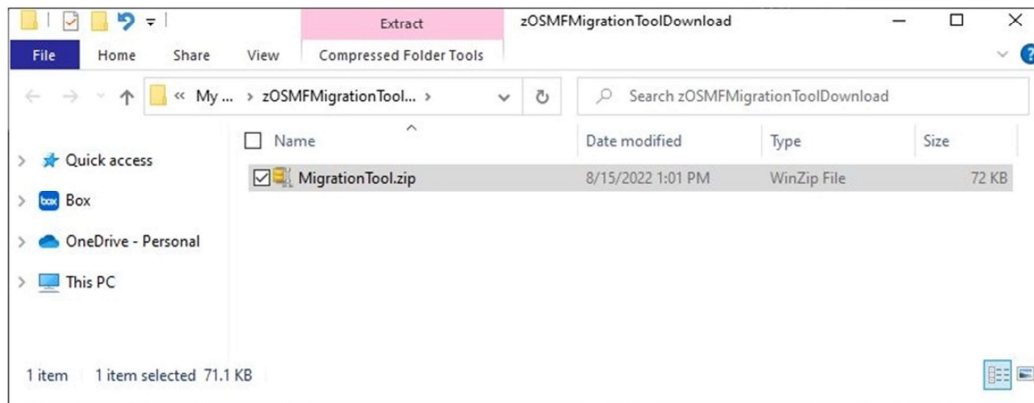
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The Broadcom migration tool package can be downloaded the from link shown here or by 'googling techdocs CSM2ZOSM'.

The package includes three members, 1) The CSMRPSQL JCL which is used to create a MIGROUT file containing CSM managed CSIs, 2) the CSM2ZOSM REXX exec which is used to read a MIGROUT file and then call the z/OSMF REST API to register the software instances and 3) The LISTTGZ REXX exec that is used by the CSM2ZOSM REXX EXEC to list the target zones that are registered.

Download and Install the Broadcom migration tool package

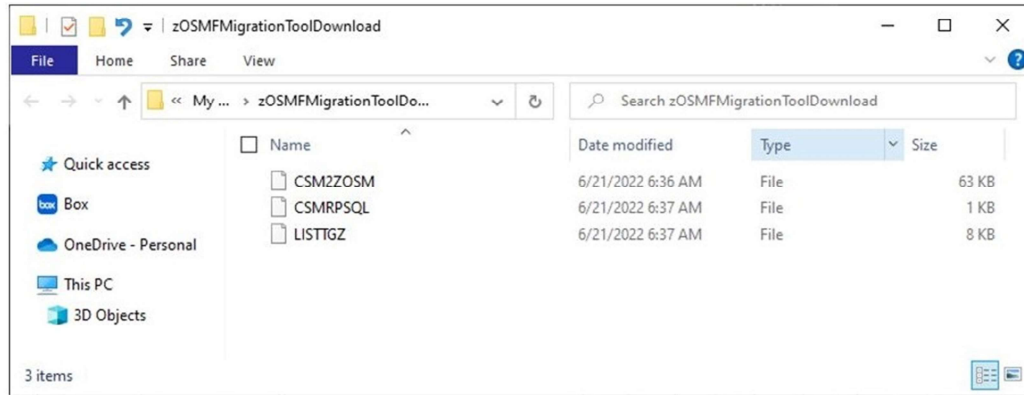


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The links can be used to Download the zip file to your workstation. Here is a snapshot of the MigrationTool zip file.

Download and Install the Broadcom migration tool package



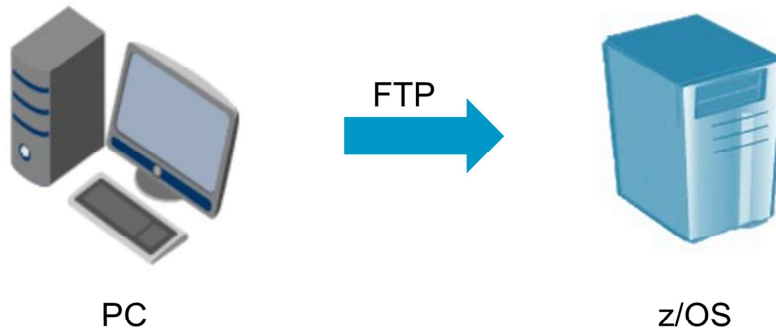
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Next Unzip the three files from the zip file on your workstation as shown here.

Download and Install the Broadcom migration tool package

FTP the three migration tool member to z/OS in ASCII format FB 80.

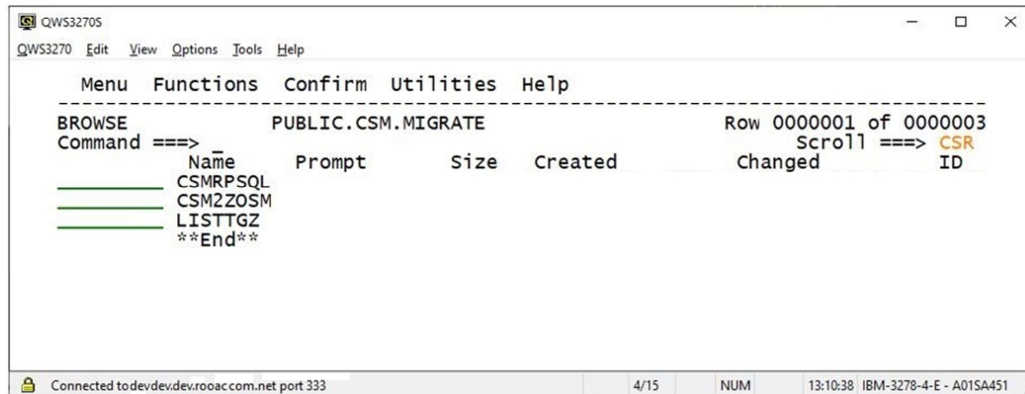


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Next FTP the three migration tool members to z/OS in ASCII format FB 80.

Download and Install the Broadcom migration tool package



```
QWS3270S
QWS3270 Edit View Options Tools Help

Menu Functions Confirm Utilities Help
-----
BROWSE          PUBLIC.CSM.MIGRATE          Row 0000001 of 0000003
Command ==>          Scroll ==> CSR
          Name      Prompt      Size      Created      Changed      ID
-----
          CSMRPSQL
          CSM2ZOSM
          LISTTGZ
          **End**

Connected to devdev.rooac.com.net port 333      4/15      NUM      13:10:38 IBM-3278-4-E - A01SA451
```

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Here is a snapshot of the z/OS PDS containing the three migration tool members.

Use the CSM2ZOSM utility to migrate your CSM or SMP/E CSIs

For users migrating **CSM managed** product CSIs

1. Ensure that the CSM MUF and DBSERV tasks are active.
2. Customize the **CSMRPSQL** JCL to retrieve the CSIs that are managed by CSM.

Modify the **JOB statement**, CSM database runtime libraries **high-level qualifier** and **output data set name**.

```
/* JOB card line 1
/* Enter the HLQ of Datacom's step libraries
// SET CSMRT='your.Datacom.hlg'
/* Enter the DSN for the output from Datacom
// SET MIGROUT='your.migrate.output.dataset'
//SQLEXEC EXEC PGM=DBSQLPR,
```

Note: this JCL is used only for CSM users.

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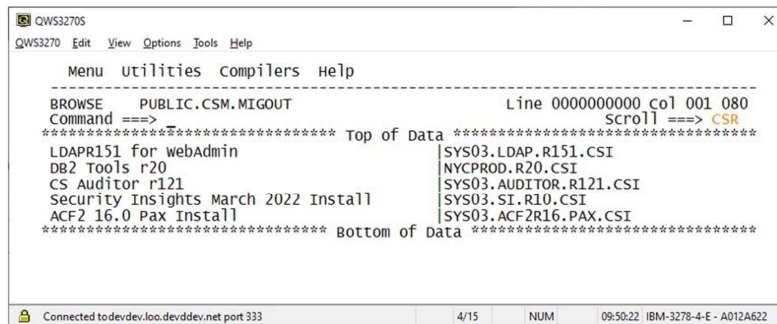
The CSMRPSQL job is only used for migrating CSM SMP/E managed CSIs. For NON-CSM users, use of this job can be bypassed. Before running the CSMRPSQL job, verify that the CSM MUF and DBSERVE started tasks are active. For CSM managed product CSIs, modify the CSMRPSQL JCL, update the jobcard as shown in blue, the CSM Datacom high level qualifiers as shown in purple and the dataset name of the MIGROUT dataset to be dynamically allocated and created as shown in green. Note the CSM HLQ can be obtained from the CSM started tasks.

Use the CSM2ZOSM utility to migrate your CSM or SMP/E CSIs

For users migrating **CSM managed** product CSIs continued

3. Submit the **CSMRPSQL** JCL.
4. The CSMRPSQL script retrieves all information about the CSIs and SMP/E environment names and copies them into the MIGROUT output data set.

Sample MIGROUT output data set:



```
QWS32705
Menu utilities compilers Help
-----
BROWSE PUBLIC.CSM.MIGROUT Line 0000000000.col 001 080
Command ==> Scroll ==> CSR
***** Top of Data *****
LDAPR151 for webAdmin SYS03.LDAP.R151.CSI
DB2 Tools r20 NYCPROD.R20.CSI
CS Auditor r121 SYS03.AUDITOR.R121.CSI
Security Insights March 2022 Install SYS03.SI.R10.CSI
ACF2 16.0 Pax Install SYS03.ACF2R16.PAX.CSI
***** Bottom of Data *****
Connected to devdev.lco.devdev.net port 333 4/15 NUM 09:50:22 IBM-3278-4-E - A012A622
```

Submit the CSMRPSLQ job. This job will create the MIGROUT sequential dataset MIGROUT which will be used for input into the CSM2ZOSM REXX exec. Here is a sample of a MIGROUT dataset created by the CSMRPSQL job.

Use the CSM2ZOSM utility to migrate your CSM or SMP/E CSIs

For users migrating **non-CSM managed** product CSIs

1. Create a MIGROUT sequential data set RECFM VB LRECL 160 BLKSIZE 6144 that contains the list of *key|value* pairs, where *key* is the future instance name and *value* is the CSI data set separated by a vertical bar '|'. For example:

```
QWS3270S
QWS3270 Edit View Options Tools Help

Menu utilities compilers help
-----
BROWSE PUBLIC.SMPE.MIGROUT Line 0000000000 col 001 080
Command ==> scroll ==> CSR
***** Top of Data *****
CA Auditor r121 |SYS99.AUDITOR.R121.CSI
ACF2 R16 INSTALL |SYS99.ACF2R16.CSI
***** Bottom of Data *****

Connected to devdev.loo.devdev.net port 333 4/15 NUM 09:50:22 IBM-3278-4-E - A012A622
```

For NON-CSM sites, there is no need to run the CSMRPSQL job. NON-CSM sites can create the MIGROUT sequential dataset for input into the CSM2ZOSM REXX exec. The MIGROUT dataset should be allocated as RECFM VB, LRECL 160 BLKSIZE 6144. The MIGROUT data set consists of records that contain Key Pair Values that specify the z/OSMF future instance name and the CSI data set name separated by a vertical bar. Here is a sample MIGROUT file created to migrate two CSIs.

Use the CSM2ZOSM utility to migrate your CSM or SMP/E CSIs

For users migrating **non-CSM managed** product CSIs

MIGROUT sequential data set Key pair syntax:

Future Instance Name|*Data Set CSI*|

- Blanks are not required before or after the "|"
- One line per record, 80 characters or less, key pair records cannot be continued
- *Future Instance Name* can contain up to 30 non-blank characters*, including alphanumeric characters (A-Z, a-z, and 0-9), mathematical symbols (< > - = | \), punctuation marks (? ! : ' " /), and special characters (\$ _ # @ ^).
 - * **Note:** blank characters in between non-blank characters will be converted to underscore "_", ie. CAAUDITOR R121 => CA_AUDITOR_R121
- *Data Set CSI* must comply with z/OS data set naming conventions, 44 character maximum, and must end with .CSI.
- Closing "|" after *Data Set CSI* is optional.

Examples:

```
CA Auditor R121 | SYS1.AUDITOR.R121.CSI
CA Auditor R121 Prod LPAR2 | SYS1.AUDITOR.R121.CSI
```

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This is the syntax for the MIGROUT sequential data set Key Pair input control cards.

The syntax is future instance name vertical bar data set CSI vertical bar.

Here are two key pair record examples.

Use the CSM2ZOSM utility to migrate your CSM or SMP/E CSIs

For migrating **ALL** product CSIs (CSM managed and non-CSM managed)

Customize and run the **CSM2ZOSM** REXX script

In the JCL variables, add the **connection details** for your z/OSMF instance and provide the **MIGROUT output dataset name** created from the previous **CSM managed** or **non-CSM managed** steps. For ZosmfUser specify a valid z/OSMF userid/logonid/acid.

```
/* ----- START OF USER CUSTOMIZED VARIABLES ----- */
/ZosmfUri = 'https://abc.test.com' /* example: 'https://mvssys01.acme.com' */
/ZosmfPort = '1445' /* example: '1443' */
/ZosmfUser = 'user001' /* example: 'smithjo' */
/ZosmfSystem = 'test01' /* example: 'sys01' */
/SafKeyRing = 'izusvr/IZUKeyring.IZUDEFLT' /* Default */
/SSLVersion = 'TLSv12' /* Default */
/* Enter the data set name with the output from CSM Datacom */
/* (the same value as the MIGROUT variable has in the CSMRPSQL JCL) */
/DatacomOutput = 'your.migrate.output.dataset'
```

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CSM2ZOSM is used for migrating both CSM and NON-CSM SMP/E CSIs. Modify the REXX script variables for the z/OSMF connection, userid and input migration file.

Update the z/OSMF URI and PORT variables per your site's z/OSMF instance. The SafKeyRing would specify the z/OSMF keyring information. These values can be determined from the systems programmer that configured z/OSMF. The Zosmfuser should specify the userid of a valid z/OSMF user. The ZosmfSystem should specify a valid z/OSMF defined system. SSLVersion should specify TLSv12. The DatacomOutput variable should specify the MIGROUT dataset that was created previously by the CSMRPSQL job for CSM users or the MIGROUT data set that was allocated, created and updated for NON-CSM users.

Use the CSM2ZOSM utility to migrate your CSM or SMP/E CSIs

For migrating **ALL** product CSIs(CSM managed and non-CSM managed)

Customize and run the **CSM2ZOSM** REXX script(continued)

In the JCL variables, specify optional **Software Instance category** and **Software Instance description** as required.

```
/* Optional - Assign newly created Software Instance to a category.      */
/* Category name can be up to 30 non-blank alphanumeric characters.    */
/* Empty string means no category is assigned.                          */
SwiCategory = '' /* Default */
/* Optional - Add description to newly created Software Instance.      */
/* The description can contain a maximum of 256 characters.            */
SwiDescription = 'Migrated from CA CSM' /* Default */
/* ----- END OF USER CUSTOMIZED VARIABLES ----- */
```

Before running CSM2ZOSM ensure that the z/OSMF IZUANG1 and IZUSVR1 tasks are active.

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Here are additional CSM2ZOSM REXX script variables. The Software Instance category defaults to blank and Software Instance description defaults to 'Migrated from CA CSM'. The Software Instance category can be updated to specify the desired z/OSMF category or updated later from z/OSMF. The Software Instance description will default to 'Migrated from CA CSM' or it can be modified to a desired meaningful description. For example for NON-CSM migrated environments, sites might specify Migrated CSI and a date.

Use the CSM2ZOSM utility to migrate your CSM or SMP/E CSIs

For migrating **ALL** product CSIs(CSM managed and non-CSM managed)

Customize and run the **CSM2ZOSM** REXX script(continued)

Run the **CSM2ZOSM** REXX script.

- From ISPF option 6 command line specify:

ex 'your.csm.migrate.pds(CSM2ZOSM)'

- From ISPF edit or browse of the PDS containing the migration tool members enter 'ex' to execute the CSM2ZOSM:

ex_____ CSM2ZOSM

- As a result of the REXX execution, there is a prompt for the password for the z/OSMF user and for the dataset name of a temporary output data set that will be created. The temporary output data set contains a report with detailed SMP/E environment information.

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There are 2 Methods to run the CSM2ZOSM REXX utility,

- 1) from ISPF option 6 enter ex followed by quote, your migration tool pds dataset name, open paren CSM2ZOSM, close paren, closing quote.
- 2) Or 2 execute from ISPF browse/edit, by entering ex in the command line before the CSM2ZOSM member.

When running the REXX exec there will be a prompt for the userid that was zosmfUser variable specified in the CSM2ZOSM REXX exec. There will also be a prompt for a temporary dataset that will be created which will include a copy of the detailed migration report that is displayed when running the exec.

Use the CSM2ZOSM utility to migrate your CSM or SMP/E CSIs

For migrating **ALL** product CSIs(CSM managed and non-CSM managed)

Sample output from the CSM2ZOSM REXX script

```
Enter the password for the USER001 user at
https://https://abc.test.com:1445
/zosmf
mypass
Enter the data set name for the Migration Summary report:
'public.migrate.output'

*****
** About to get zones for CSI SYS99.AUDITOR.R121.CSI
** Following target zones found: "CAIT0"
*****
**      z/OSMF Software Instance Single REST API Call (Begin)      **
```

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Here is an example of a user running the REXX exec. The user running the script will be prompted for the z/OSMF user password for userid variable specified in the REXX exec. The prompt provides the URL that was used based on the CSM2ZOSM variables. There is a prompt for the data set name which should be entered in quotes for the dataset that will be dynamically allocated, which will contain the migration summary report.

Use the CSM2ZOSM utility to migrate your CSM or SMP/E CSIs

For migrating **ALL** product CSIs(CSM managed and non-CSM managed)

Sample output from the CSM2ZOSM REXX script(continued)

User defined values:

ZosmfUri = **https://Mvvvvv8.LVV.VVVVVCOM.NET**

ZosmfUser = **USER001**

ZosmfPw = **xxxxxxxx**

SafKeyRing = **izusvr/IZUKeyring.IZUDFLT**

AddJson = : "name": " **CA Auditor r121** ", "system": "DDDD_001

", "description": "**Migrated from CA CSM**", "globalzone": "

SYS99.AUDITOR.R121.CSI ", "targetzones": : "CAIT0" : :

Invoking REST API to authenticate with z/OSMF

Invoking REST API to add a Software Instance.

Invoking REST API to load SMP/E managed products from the SMP/E CSI. Invoking

REST API to check if load products has finished.

Waiting for load products to finish. Sleeping for 10 seconds.

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This is a continuation of the sample execution. Note the User defined fields taken from the REXX exec specified variables.

Also note the information displayed regarding the SMP/E CSI that is being migrated.

Use the CSM2ZOSM utility to migrate your CSM or SMP/E CSIs

For migrating **ALL** product CSIs(CSM managed and non-CSM managed)

Sample output from the CSM2ZOSM REXX script(continued)

```
*****
Invoking REST API to check if load products has finished.
*****
Migration Summary Report
CSIs in total: 1
*****
CSIs that were registered as z/OSMF Software Instances: 1
SYS99.AUDITOR.R121.CSI
*****
CSIs that are missing information about target zones -
user does not have access or data set does not exist: 0
*****
CSIs that were not registered as z/OSMF Software Instances: 0
*****
** z/OSMF Software Instance transition(End) **
*****
```

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This is a continuation of the sample execution. Under the Migration Summary Report, note the CSIs in total which are the number of CSI processed, the CSIs that were successfully migrated/registered as software instances, the CSIs that were not successfully migrated.

Verify that the CSIs were migrated successfully using z/OSMF

For migrating **ALL** product CSIs(CSM managed and non-CSM managed)

- Log in to your instance of z/OSMF.
- Double click the Software Management icon on the desktop.
- Click Software Instances.
- Verify the migrated Software Instances.

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After the migration is completed. These are the Steps to Verify the software Instance was successfully migrated using z/OSMF. First logon to z/OSMF...

IBM z/OS Management Facility





mwww223vwwwwww.net:444/zosmf/

Software Management






Software Management

Use this task to view details about your software inventory, including related products, features, FMIDs, data sets, deployments, and SYSMODs. [Learn more...](#)


Software Instances	Define your software to z/OSMF; deploy software; generate reports about your software.
Portable Software Instances	Define your portable software instances to z/OSMF.
Products	View a consolidated list of the products included in each software instance.
Deployments	Deploy a software instance, and manage existing deployments.
Categories	Create new categories for your software instances and deployments, and manage existing categories.
Settings	Select the time zone in which to display date and time data. Indicate whether to display or suppress information messages.



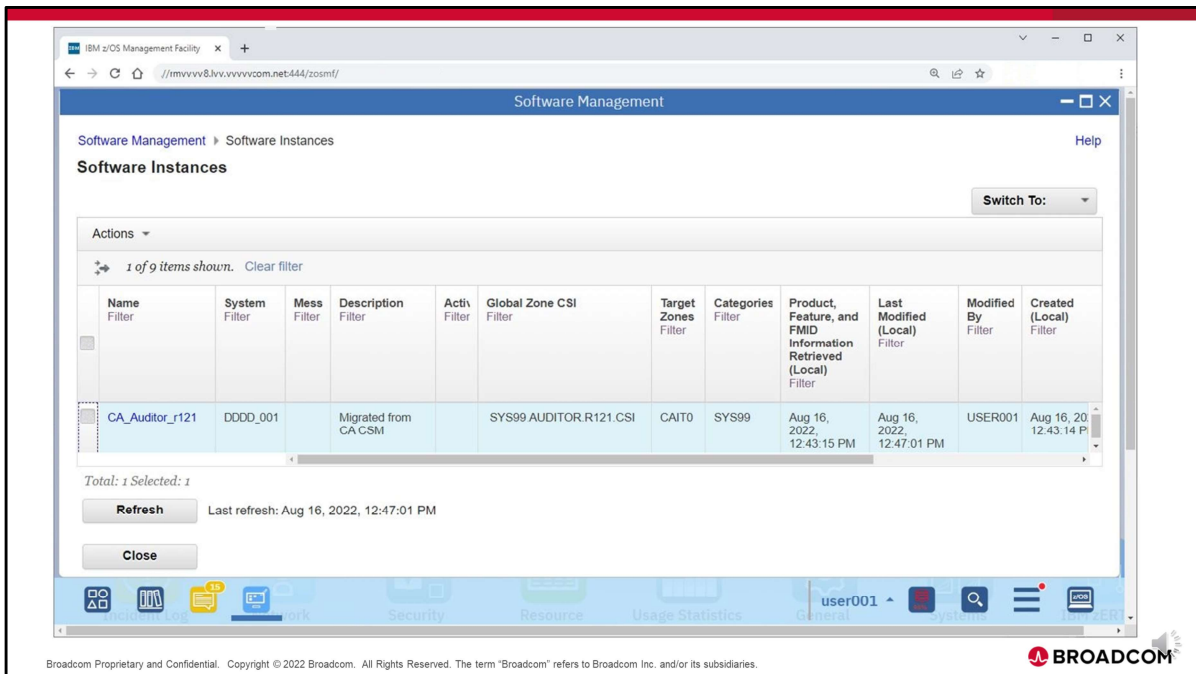
user001



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Next Click Software Instances.



The SOFTWARE Instances panel will display all Software Instances including the newly migrated software instances. Here you can verify the migrated Software Instances.

Note the CA Auditor r121 Software Instance that was migrated and the default Description from the migration utility 'Migrated from CA CSM'. After the SMP/E CSI have been migrated and registered as Software Instances the Software Update function can be used to apply maintenance.

This concludes the Migrate SMP/E Environments overview.

Assistance/Questions

The Broadcom z/OSMF Migration website contains links for additional training and details on contacting a **Product z/OSMF Advisor**:

- Consultation/Q&A
- Available Training Videos:
 - zOSMF Acquire Product
 - zOSMF Migrate SMPE Environments
 - zOSMF Product Installation
 - zOSMF Product Install Maintenance
 - Receive Order

Broadcom z/OSMF Migration website:
http://mainframe.broadcom.com/zosmf_migration



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For additional training and details on contacting a Product z/OSMF Advisor please use the link or QR code to access the z/OSMF Migration website.

