CICSPlex SM - A Minimalist Approach

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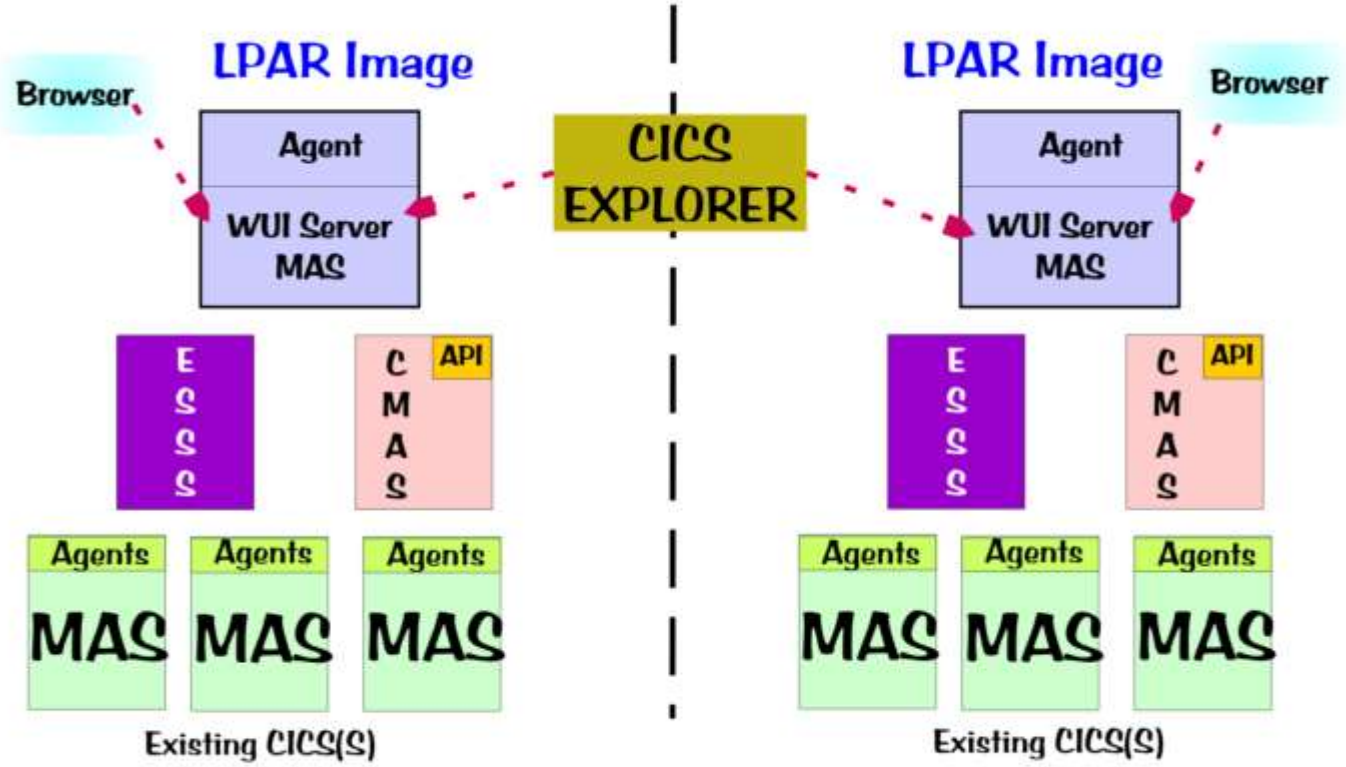
Agenda

- Introduction to CICSPlex SM
- The environment
  - Managed Application System (MAS)
  - CICSPlex SM Address Space (CMAS)
  - Environment Services System Services (ESSS)
  - Web User Interface (WUI) Server
  - CICS Explorer
- Installing and configuring a CICSplex
  - CMAS
  - WUI
  - MAS
- CICSPlex SM features
  - Single System Image (SSI)
  - Single Point of Control (SPOC)
  - CICS operational
    - Super CEMT
    - Super CEDA
- CICSPlex SM components
  - Workload Manager (WLM)
  - Everything else:
    - Real Time Analysis (RTA)
    - Monitor (MON)
    - Business Appl Services (BAS)
- CICSPlex SM interfaces
  - Batch Repository Facility (BATCHREP)
  - Web User Interface (WUI)
  - CICS Explorer
- Summary

Introduction to CICSPlex SM

- CICSPlex System Manager (CICSPlex SM) is a component of CICS Transaction Server (CICSTS).
- System management tool that enables you to manage multiple CICS systems from a single control point.
- Can provide a single-image view of your CICS regions.
- Use CICSPlex SM to:
  - implement workload management
  - use platforms, applications, and policies in CICS

The CICSPlex SM Environment



The CICSPlex SM Environment

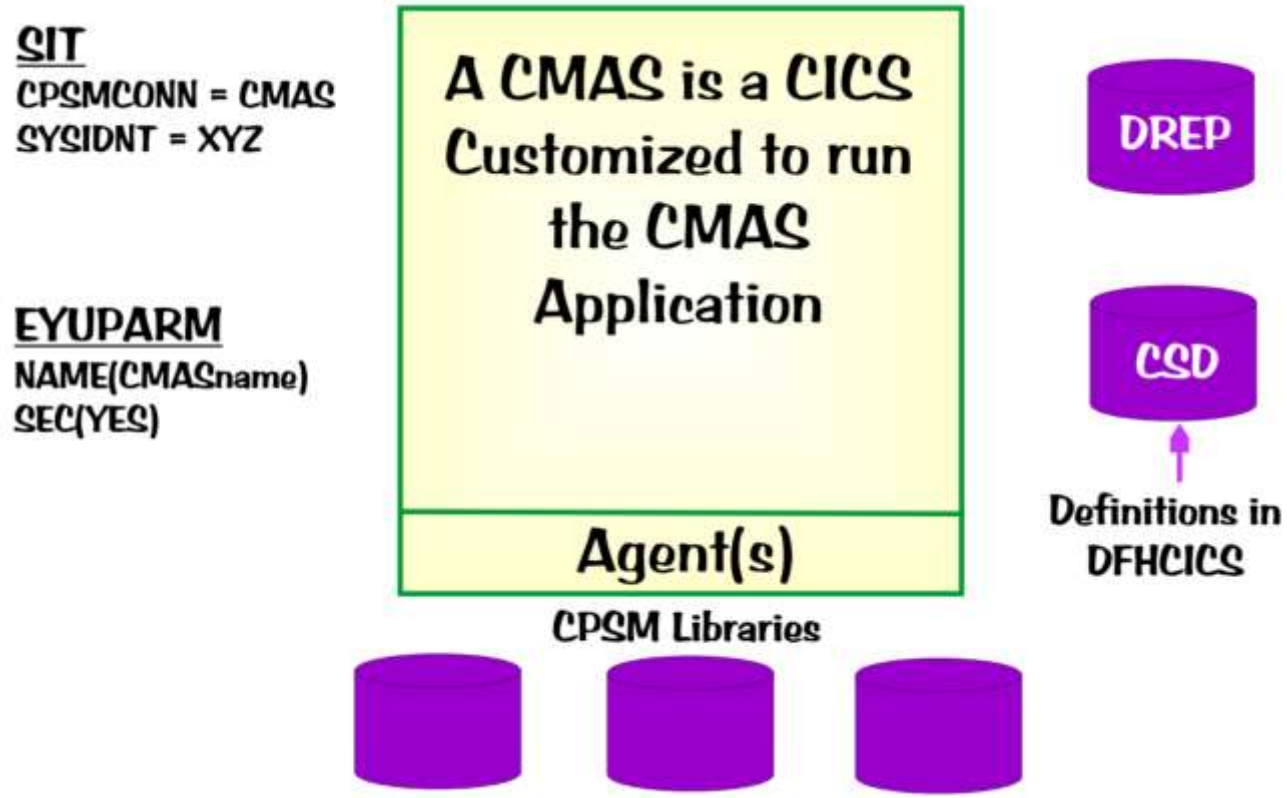
- Used to configure and control the operation of CICS regions and the applications running in them.
  - **Managed Application System (MAS)**
    - Existing CICS address spaces needing to be managed.
  - **CICSPlex SM Address Space (CMAS)**
    - Customized CICS region that runs the CICSPlex SM code as applications.
    - Communicates with MAS via agents (COxx transactions).
  - **Web User Interface (WUI)**
    - Enables external communication with CMAS applications.
    - Access point for CICS Explorer.
  - **Environment Services System Services (ESSS)**
    - Provides XM and Data Space services to CMAS for communication with CICS regions within an LPAR.

Installing and configuring a CICSplex

- Create a CMAS
- Create and configure a WUI
  - Import default menu and view sets.
- CICSplex topology
  - Build CICSplex definition.
  - Make CICSSYS definitions within CICSplex.
- Modify existing CICS regions (MASs) to connect to a CICSplex.

- Build additional CMAS, one for each LPAR with CICS regions to manage.
- Build CMAS to CMAS links for all LPARS CMASs.

Creating a CMAS



Creating a CMAS

- CICSPlex SM Address Space (CMAS): A CICS region customized to run the CICSPlex SM applications.
- Customization documented in the CICS Transaction Server Installation Guide.
- **SIT**:
  - **CPSMCONN=CMAS**: Identifies this as a CMAS at start-up.
  - **SYSIDNT**: Must be unique in the CICSplex and must match the value initialized in the **EYUDREP**.
- **SEC** in **EYUPARMS**: Used to control the security environment.
  - **SEC(YES)** in CMAS will require security in MAS to connect.
- Samples in library **SDFHINST**:
  - **EYUCMSOP**: **EYUPARM**
  - **EYUCMASP**: Start-up procedure.

Data repository creation (EYU9XDUT)

- Each CMAS needs a private data repository.
- Sample job **EYUCMSDS** created by installation.

```
//DREPALOC EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=*
//SYSIN DD *
DEFINE CLUSTER -
  (NAME(CPSM410.EYUDREP.CMAS1) -
  RECORDS(500,3000) -
  CISZ(8192) -
  RECSZ(200,6550) -
  KEYS(64,0) -
  SHR(2) -
  INDEXED SPEED REUSE )
/*
//DREPINIT EXEC PGM=EYU9XDUT,
//            PARM='CMASNAME=CMAS1',
//            'DAYLIGHT=N',
//            'TIMEZONE=Z',
//            'SYSID=CMO1',
//            'ZONEOFFSET=0'
//EYUXDPRM DD WUI=YES,
//            WUIPLEX=WUIPCM01,
//            WUINAME=WUINCM01,
//            WUIAPPLID=wuiapplid,
//            WUISYSID=WU01
//STEPLIB  DD DISP=SHR,DSN=CICSTS41.CPSM.SEYULOAD
//EYUDREP  DD DISP=OLD,DSN=CPSM32.EYUDREP.CMAS1
//SYSPRINT DD SYSOUT=*
```

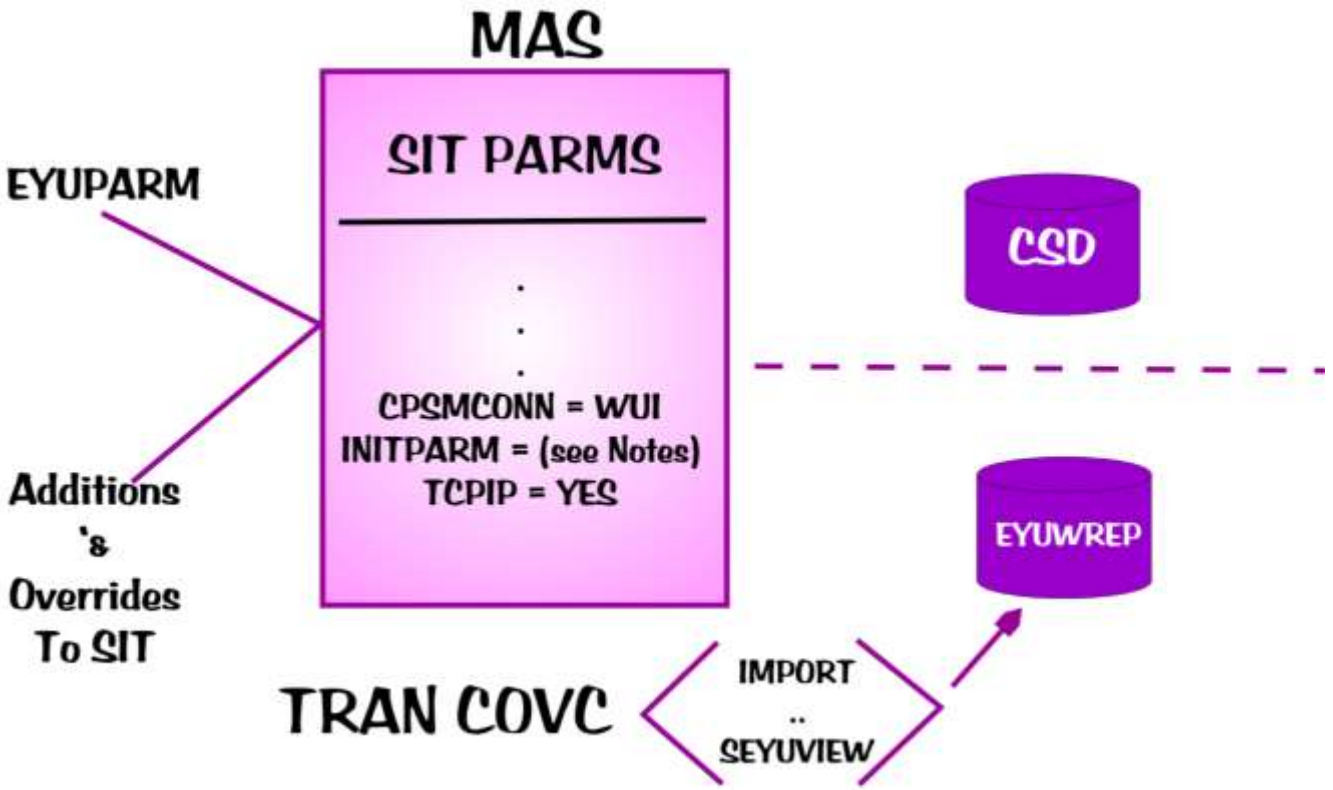
- **CMASNAME** and **SYSID** – must match at CMAS startup.

CMAS startup JCL (example)

- A CMAS is really a dedicated CICS region.

```
//EYUCMAS PROC DSNCSD=CICSTS41.CPSM.DFHCSD,  CSD Data Set name
// DSNTBL=CICSTS41.CPSM.RGNLOAD,             CICS Table Module library
// RGNHLQ=CICSTS41.CPSM,                     CICS Region DSN qualifier
// CICSPRM=EYUC66I0,                         CICS SIT Parameters
// CPSMPRM=EYUCMS0P                          CPSM Parameters
//*
//CICS EXEC PGM=EYU9XECS,                    CMAS Startup program
// PARM='SYSIN',                             CICS Parameters location
// REGION=0K                                 Region Size
//*
//STEPLIB DD DISP=SHR,DSN=CICSTS41.CPSM.SEYUAUTH
// DD DISP=SHR,DSN=CICSTS41.CICS.SDFHAUTH
// DD DISP=SHR,DSN=SYS1.SCEERUN2
// DD DISP=SHR,DSN=SYS1.SCEERUN
//DFHRPL DD DISP=SHR,DSN=CICSTS41.CPSM.SEYULOAD
// DD DISP=SHR,DSN=CICSTS41.CICS.SDFHLOAD
// DD DISP=SHR,DSN=SYS1.SCEECICS
// DD DISP=SHR,DSN=SYS1.SCEERUN2
// DD DISP=SHR,DSN=SYS1.SCEERUN
// DD DISP=SHR,DSN=&DSNTBL
··· DFHINTRA ... DFHCSD ... DFHLCD ... DFHGCD ... DFHLRQ ...
... DFHTEMP ... DFHDMPA ... DFHDMPB ... DFHAUXT ... DFHBUXT ...
//EYULOG DD SYSOUT=*
//EYUDREP DD DISP=SHR,DSN=CICSTS41.CPSM.EYUDREP.cmasname
//SYSIN DD DISP=SHR,DSN=CICSTS41.CPSM.SEYUPARM(&CICSPRM)
//EYUPARM DD DISP=SHR,DSN=CICSTS41.CPSM.SEYUPARM(&CPSMPRM)
```

Creating a WUI



Creating a WUI

- Web User Interface (WUI): Enables external communication with CMAS applications.
- Definitions included in **DFHLIST**.
- **SIT**:
  - **CPSMCONN=WUI**: Identifies this as a WUI.
  - **INITPARM=(EYU9VKEC='ENU',EYU9VWAN='ENU1')**: English language support.
  - **TCPIP=YES** (if not already specified)
- **EYUPARMS**: "additions" to SIT values.
  - Required: CICSplex name that the MAS is to join.

Creating a WUI

- WUI Server JCL

EYUWUI: the WUI server initialization parameters

EYUWREP: identifies the WUI server repository

EYULOG: identifies the CICSPlex SM log

DFHHTML: the OPTIONAL user help data set

EYUCOVI: the OPTIONAL data set used to IMPORT views

EYUCOVE: the OPTIONAL data set used to EXPORT views

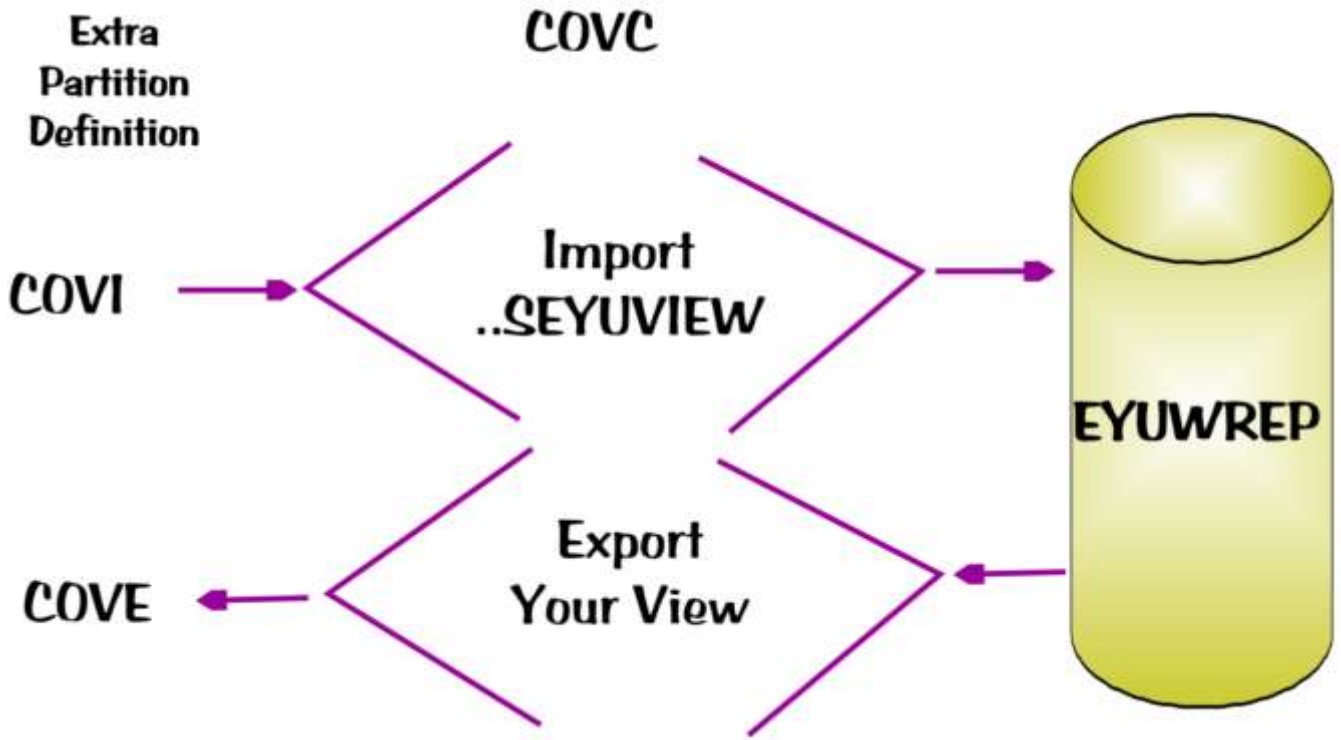
Creating a WUI: EYUWUI

```
DEFAULTMENU(EYUSTARTMENU)
TCPIPHOSTNAME(172.17.69.25)
TCPIPPORT(10527)
CMCIPPORT(10528)
DEFAULTCMASCTXT(CCVT52C)
DEFAULTCONTEXT(CCVPLEXJ)
DEFAULTSCOPE(CCVPLEXJ)
INACTIVETIMEOUT(240)
```

```
DEFAULTMENU(EYUSTARTMENU)
DEFAULTNAVIGATE(MYNAVIGATE)
TCPIPHOSTNAME(ZOS.CIRCLE-US.COM)
TCPIPPORT(6000)
CMCIPPORT(7000)
DEFAULTCMASCTXT(CMAS1)
DEFAULTCONTEXT(EYUPLEX01)
DEFAULTSCOPE(EYUPLEX01)
INACTIVETIMEOUT(40)
COLORPAPERHEAVY(00FF00)
```

- Complete list of parameters can be found in the CICS TS Installation Guide.

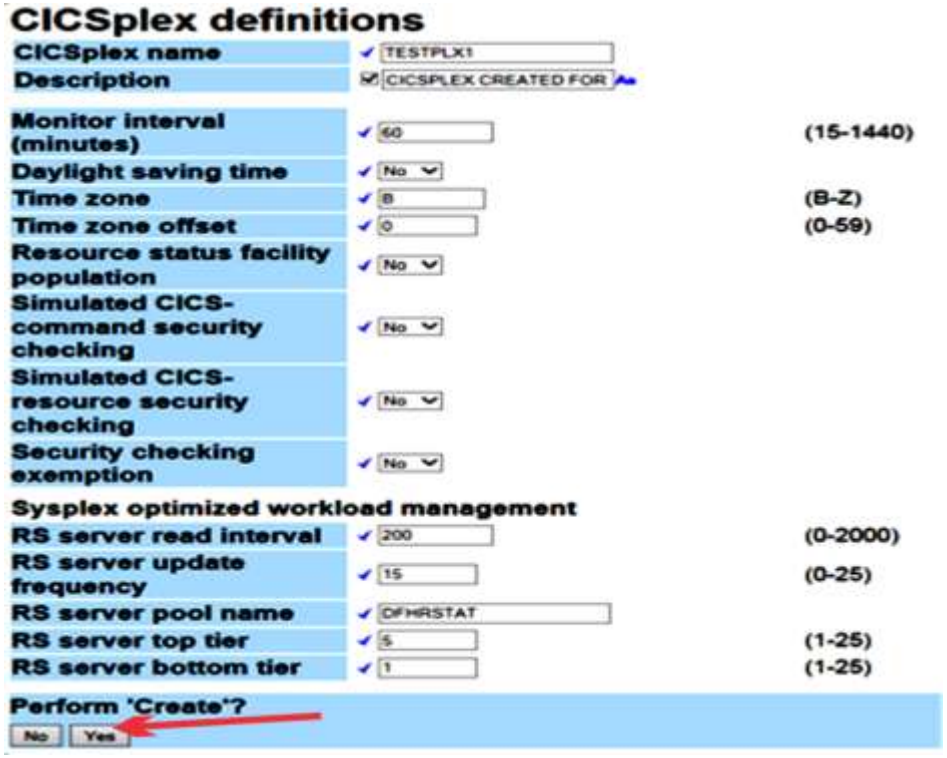
Creating a WUI: COVC Import



Creating a WUI: COVC Import

```
COVC                  CICSPlex SM Web User Interface Control          EYUVCTW

                              Import from a data set


      Input data set name  : CICS.V690.CPSM.SEYUVIEW
                                        Name of data set for import

      Input data set member: EYUEA*     Member name, trailing * allowed

      Type                 : ALL        MEnu | Viewset | USERGrp | User | MAp
                                        All

      Import option        : OVERWRITE  Skip | Overwrite | DELETE



Current Status : Ready                                      Time : 11:51:25
Applid         : CCVT52M                                    Date : 07/21/2015
EYUVS0916I Import operation completed successfully. 319 objects processed.


PF   1 Help      3 Exit                                        12 Return
```

Defining a CICSplex



- The CMAS context, in effect, when defining the CICSplex will be the maintenance point (MP) CMAS for this CICSplex

Time zone codes

Code	GMT offset	Description	Code	GMT offset	Description
A	n/a	Current local time*	N	-12	(West of date line)
B	+1	Central European time	O	-11	Bering standard time
C	+2	Eastern Europe	P	-10	Hawaii standard time
D	+3	Arabia	Q	-9	Alaska standard time
E	+4	Mauritius, United Arab Emirates	R	-8	Pacific standard time
F	+5	Pakistan	S	-7	Mountain standard time
G	+6	Bay of Bengal	T	-6	Central standard time
H	+7	Thailand	U	-5	Eastern standard time
I	+8	Philippines	V	-4	Atlantic standard time
J	+9	Japan	W	-3	Greenland
K	+10	Eastern Australia	X	-2	Azores
L	+11	New Caledonia	Y	-1	West Africa
M	+12	New Zealand (East of date line)	Z	0	Greenwich mean time (GMT)

*Note: Time zone A can be specified only in a period definition

Defining a MAS: Page 1

CICS system definitions

CICS system definition name	✓
Description	Aa
General information	
Primary CMAS name	
Period definition name	
Application ID	✓
System ID	✓
Host name	Aa
Network ID	
Port number	
Security	
Simulated CICS-command security checking status	✓ Inherit
Simulated CICS-resource security checking status	✓ Inherit
Exemption from simulated security checks	✓ Inherit
Time zone	
Time zone	✓ *
Time zone offset	✓ *
Daylight saving time in effect	✓ Inherit

Defining a MAS: Page 2

Workload Management (WLM)	
Routing region active at startup	Yes
WLM optimization enablement	Disabled
Task load health threshold	60
Task load queue mode	All
Target region active at startup	Yes
RS server read interval	*
RS server update frequency	*
RS server top tier	*
RS server bottom tier	*
Real Time Analysis (RTA)	
Real time analysis status	Yes
Action for system availability monitoring event	*
Severity for system availability monitoring event	Vhs
Action for short on storage (SOS) event	*
Severity for short-on-storage (SOS) event	Hs
Action for system dump event	*
Severity for system dump event	Vhs
Action for transaction dump event	*
Severity for transaction dump event	Hw
Action for CICS-at-maximum-tasks event	*
Severity for CICS-at-maximum-tasks event	Hs
Action for CICS-stalled event	*
Severity for CICS-stalled event	Vhs
Action for Non-responsive-MAS event	*
Severity for Non-responsive-MAS event	Hw

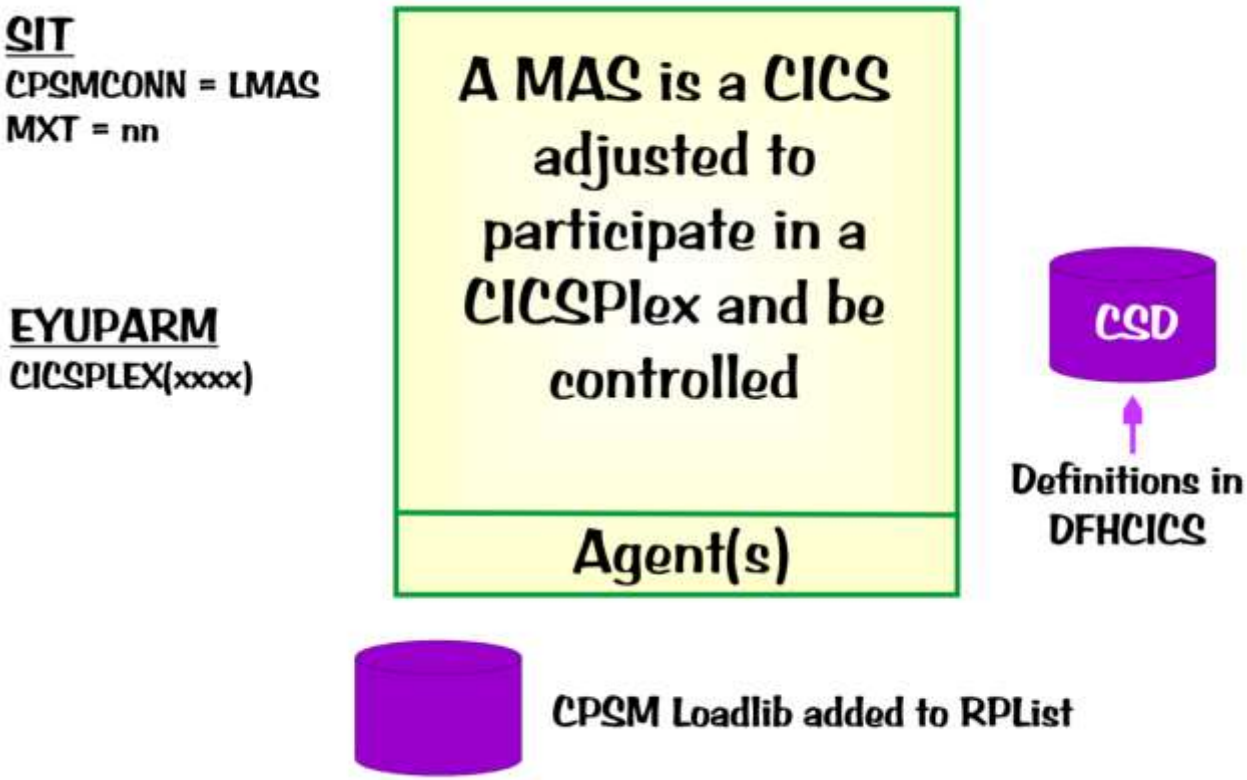
Defining a MAS: Page 3

Monitoring (MON)	
Monitoring status	✓ Inherit
Time data is kept after monitoring stops (minutes)	✓ INHERIT
Sample interval for CICS region monitoring	✓ INHERIT
Sample interval for global region monitoring	✓ INHERIT
Sample interval for DB2/DBCTRL monitoring	✓ INHERIT
Sample interval for connection monitoring	✓ INHERIT
Sample interval for file monitoring	✓ INHERIT
Sample interval for journal monitoring	✓ INHERIT
Sample interval for program monitoring	✓ INHERIT
Sample interval for terminal monitoring	✓ INHERIT
Sample interval for transaction monitoring	✓ INHERIT
Sample interval for TDQ monitoring	✓ INHERIT
Business Application Services (BAS)	
Install BAS resources option	✓ Never
BAS install failure action	✓ Continue
Model system name	☐

Perform 'Create'?

No Yes

Creating a MAS



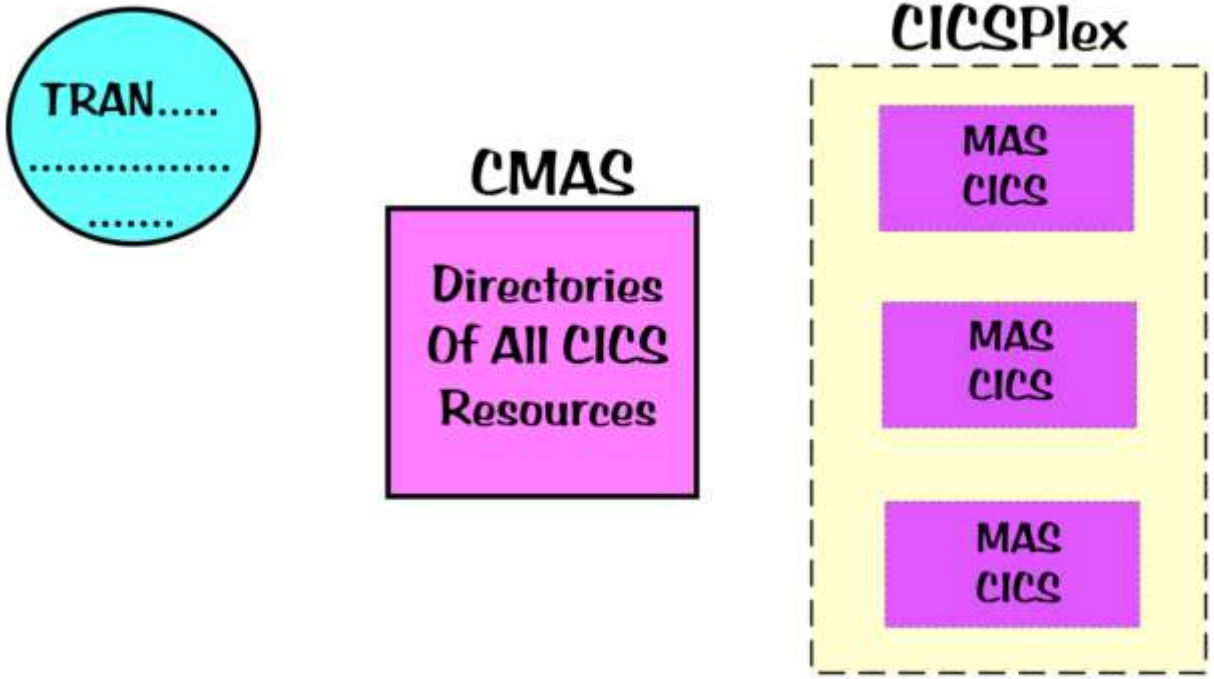
Creating a MAS

- Managed Application System (MAS): A CICS (usually an existing region) that is adjusted to participate in a CICSplex
- CICSPlex SM resources are identified to CICS by updating the CSD with the product supplied member **DFHCICS**.
- Add CPSM supplied loadlib **SEYULOAD** to the RPList.
  - When CICS is started as a MAS, a series of long running tasks (agents) are started to provide CICSplex SM communication and control.
- **SIT**:
  - **CPSMCONN=LMAS**: Identifies this as a MAS.
- **EYUPARMS**: "additions" to SIT values.
  - Required: CICSplex name that the MAS is to join.

CICSPlex SM features

- Single Point of Control (SPOC)
- Single System Image (SSI)
- View of CICSplex (Groups)
- Session Control
  - Context
  - Scope

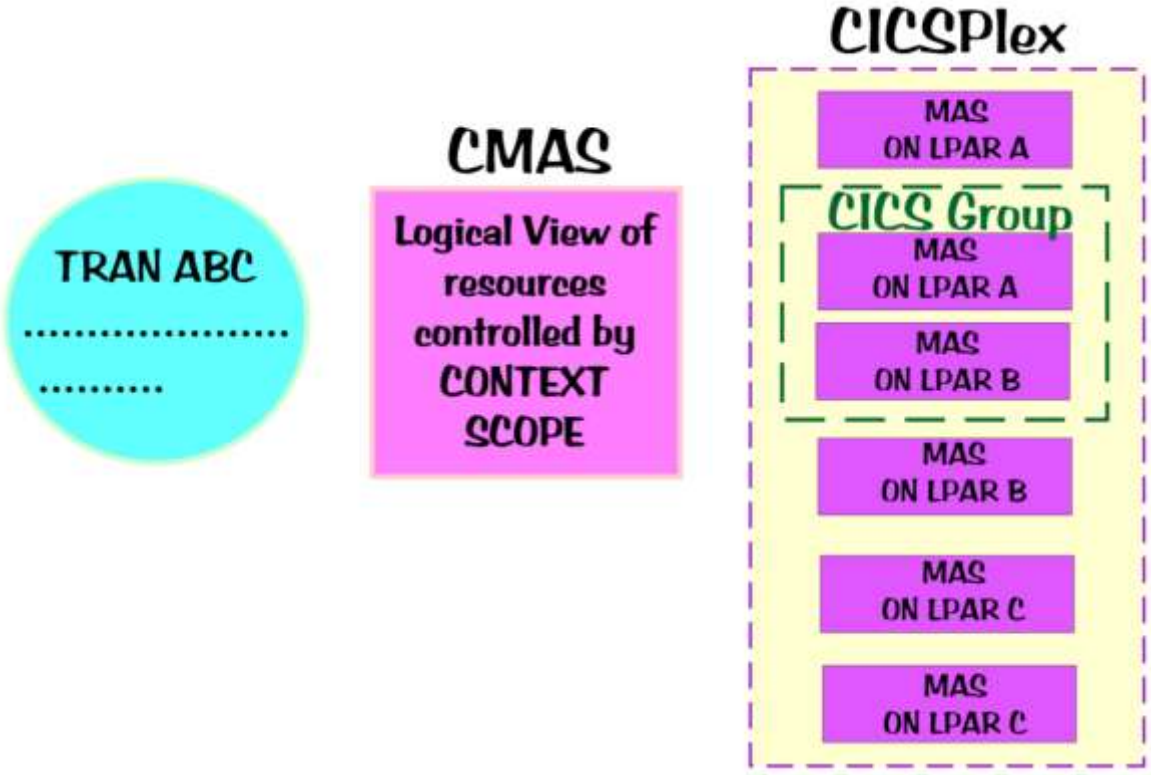
Single Point of Control (SPOC)



Single Point of Control (SPOC)

- Organize and represent resources installed in each MAS
- Interface via:
  - Web User Interface (WUI)
  - Application Programming Interface (API)
  - CICS Explorer
  - BATCHREP
- Operational views provide the same capabilities as CEMT

View of CICSplex



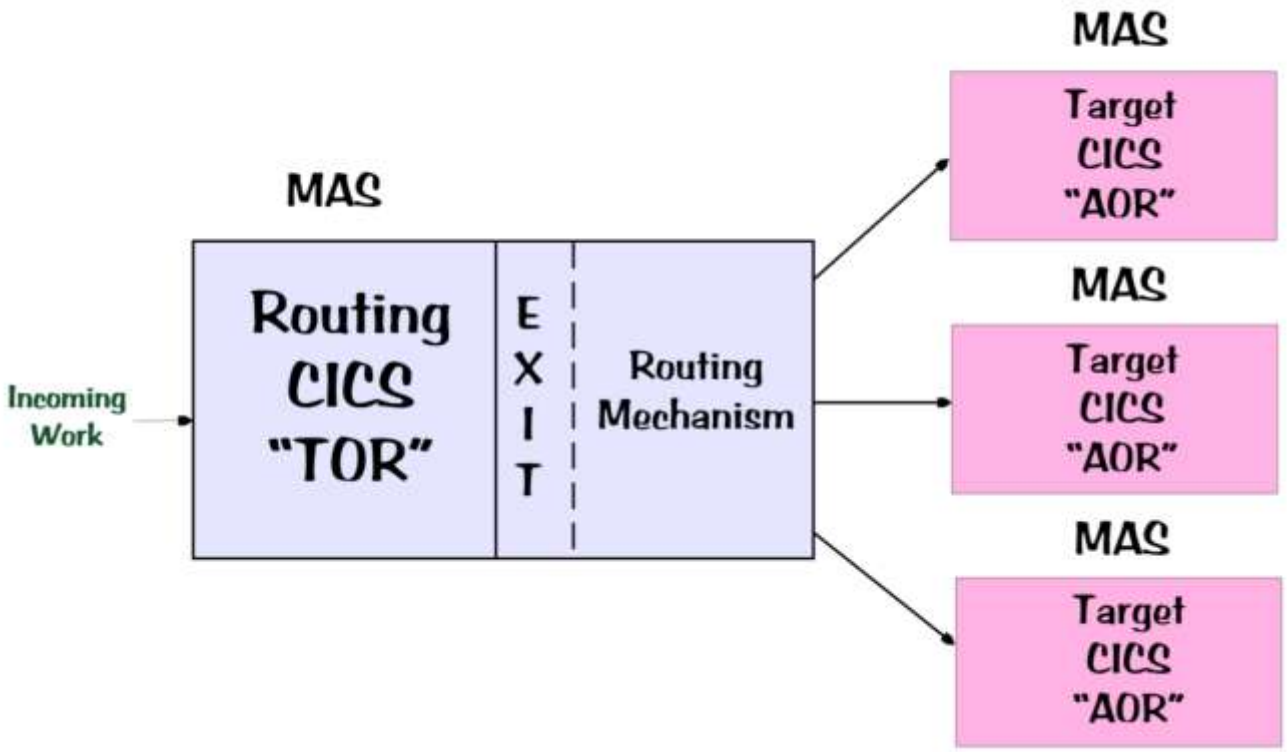
View of CICSplex

- Session control
  - **CONTEXT**: Highest level of control. May be one of:
    - CICSplex name
    - CMAS name (used for CICSPlex SM administration)
  - **SCOPE**: Subset of **CONTEXT**. May be one of:
    - CICSplex name
    - CICS group name
    - CICS MAS name
    - BAS scope name
- Specified when using the WUI and BATCHREP, implied when using the CICS Explorer.

CICSPlex SM components

- Workload Manager (WLM)
- Real Time Analysis (RTA)
- Monitor (MON)
- Business Application Services (BAS)
- Application Programming Interface (API)

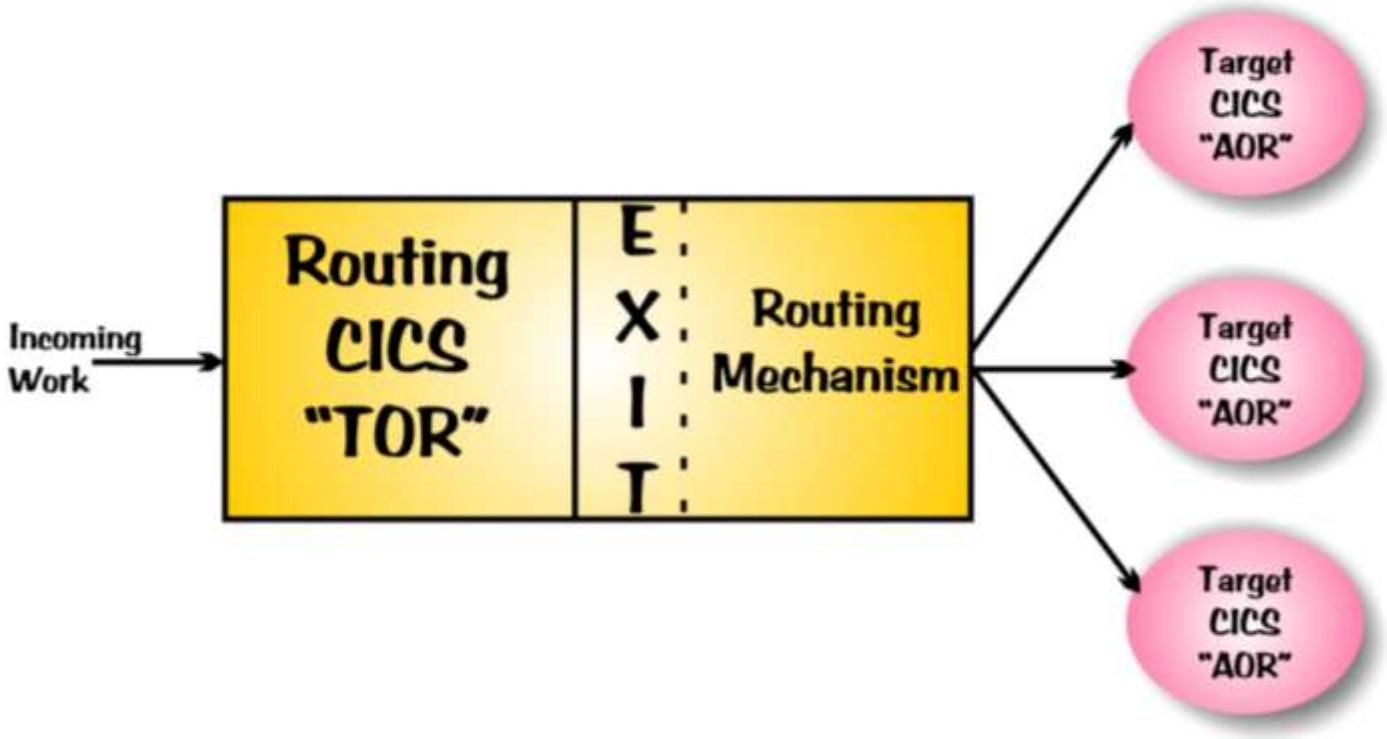
Workload Manager (WLM)



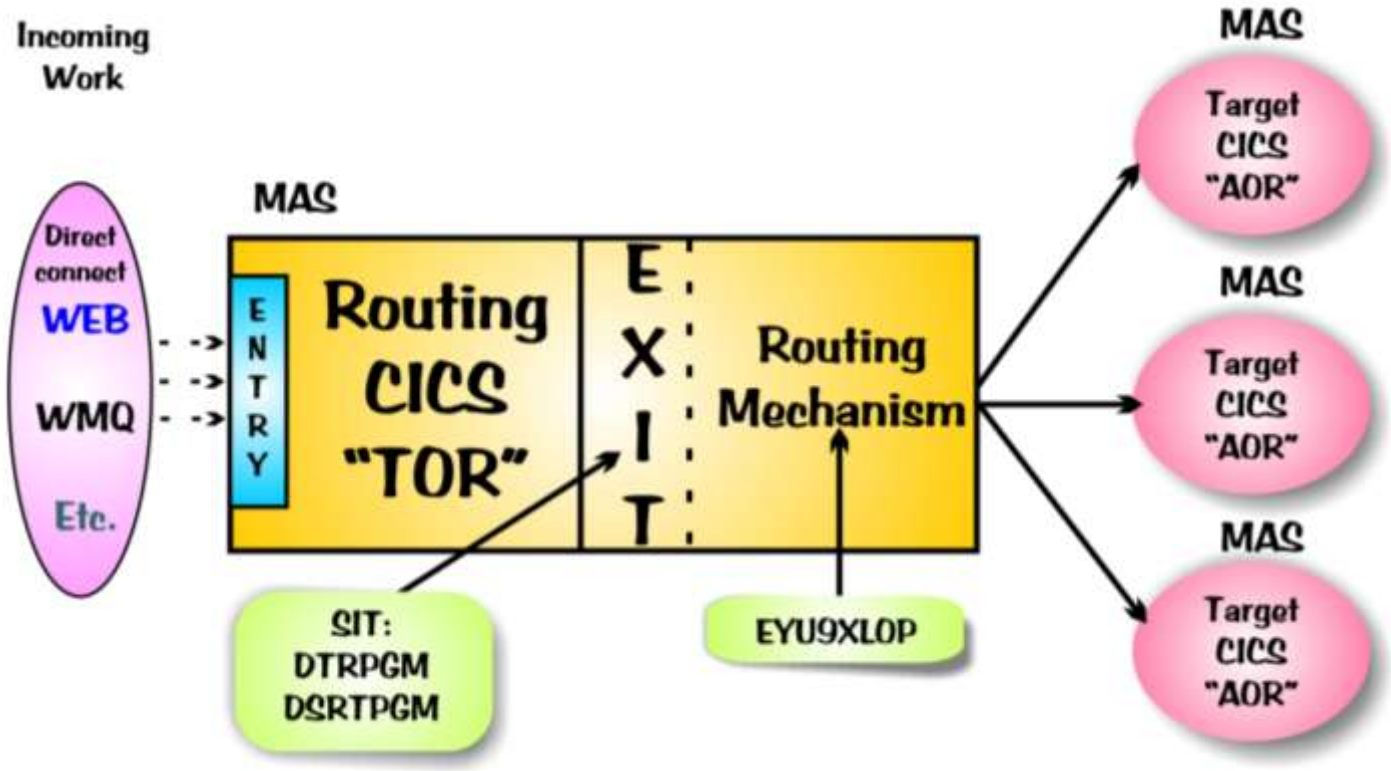
Workload Manager (WLM)

- **WLM specification (WLMSPEC)**
  - Rules for routing incoming work between target CICSs.
- Provides an exit that can be specified on the routing CICS as both its **DTREXIT** and **DSRTEXIT**.
  - Exit code determines which CICS is best for that request.

Dynamic Transaction Routing



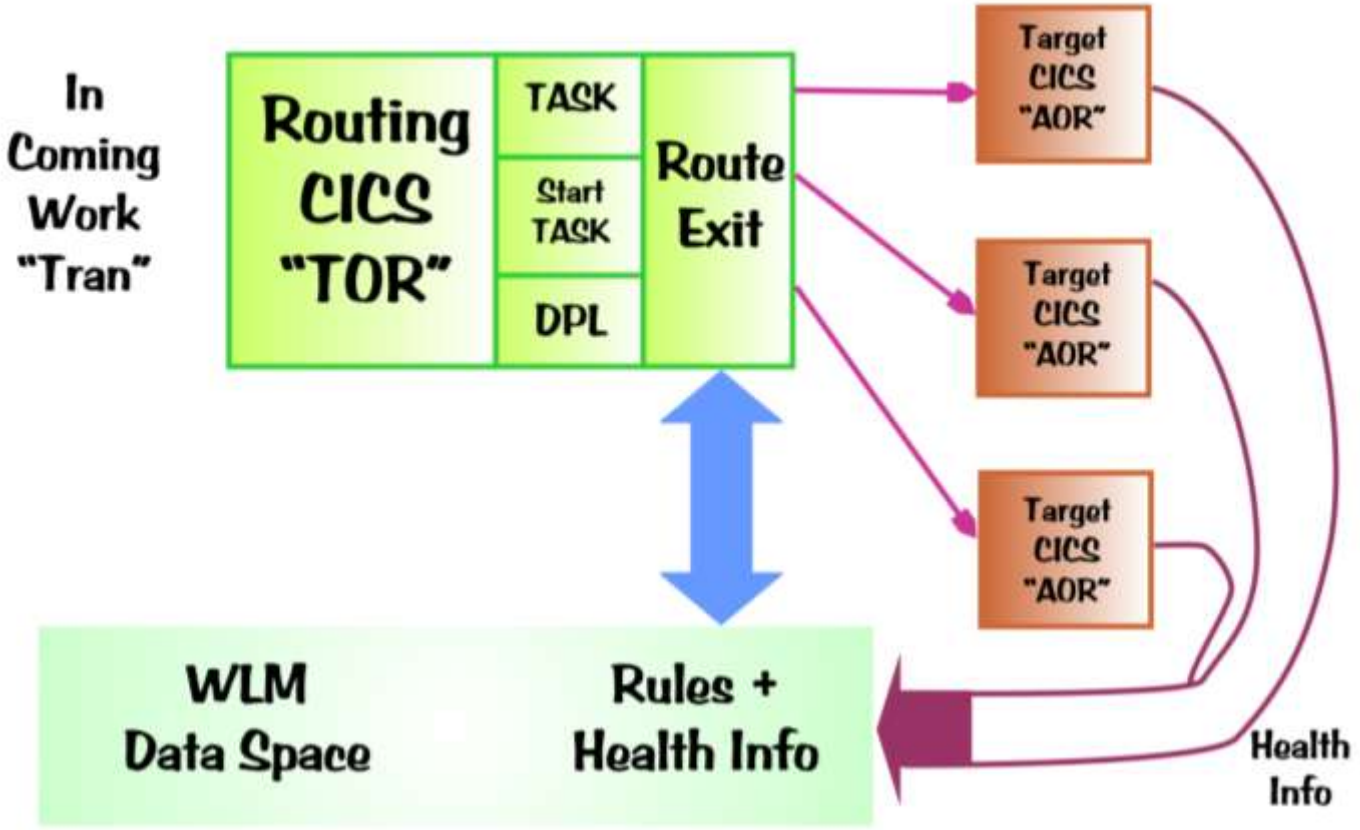
CICSPlex SM Routing



CICSPlex SM Routing

- The work entering CICS can come from many sources. Today, most CICS shops will have work requests entering CICS from the WEB and/or WMQ to name a few possibilities. The routing requirements are different depending on the source of the work. The “original” routing process was designed (catered to) terminal based transactions. This is generally not the case today.
- When CPSM was introduced, it supplied a routing exit program (EYU9XLOP) that processed terminal based transactions.
- CICS has evolved and provides exit points to call the routing exit for direct transaction starts as well as EXEC STARTs and/or EXEC LINKs issued from a program.
- The CPSM supplied exit program EYU9XLOP has evolved to handle work requests and supply a SYSID back to the CICS relay program for routing.

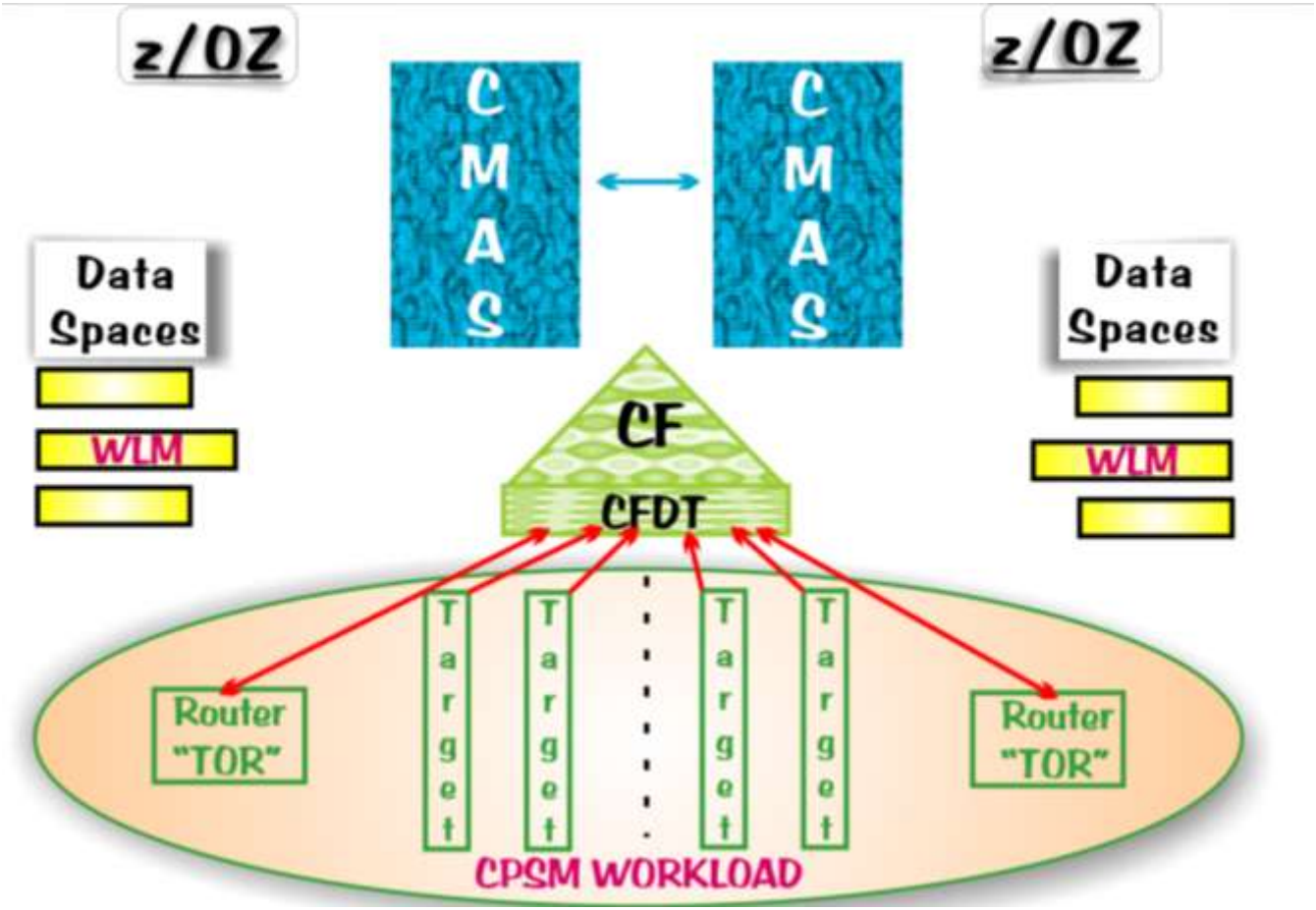
WLM Overview



WLM Overview

- Work that has been defined as “routable” within a “Routing CICS” will have a “Target CICS” selected for it to run in at request time. The selection process is accomplished in the Routing CICS’s WLM management exit. There are 2 WLM exit specifications in the Routing Region’s SIT. They are DTRPROG and DSRTPROG.
- CPSM provides the exit program (EYU9XLOP) to be specified.
- WLM code in the CMAS collects “Health” information on the active Target CICSs.
- This “Health” information, and the rules as to where work can run, is maintained in the WLM data space.
- At route request time, the WLM exit in the routing CICS interrogates the WML date to quickly make a decision as to the BEST target CICS at this time.
- Optionally, “Enhanced CPSM WLM” may be used at CICS TS V4 and above

Enhanced WLM

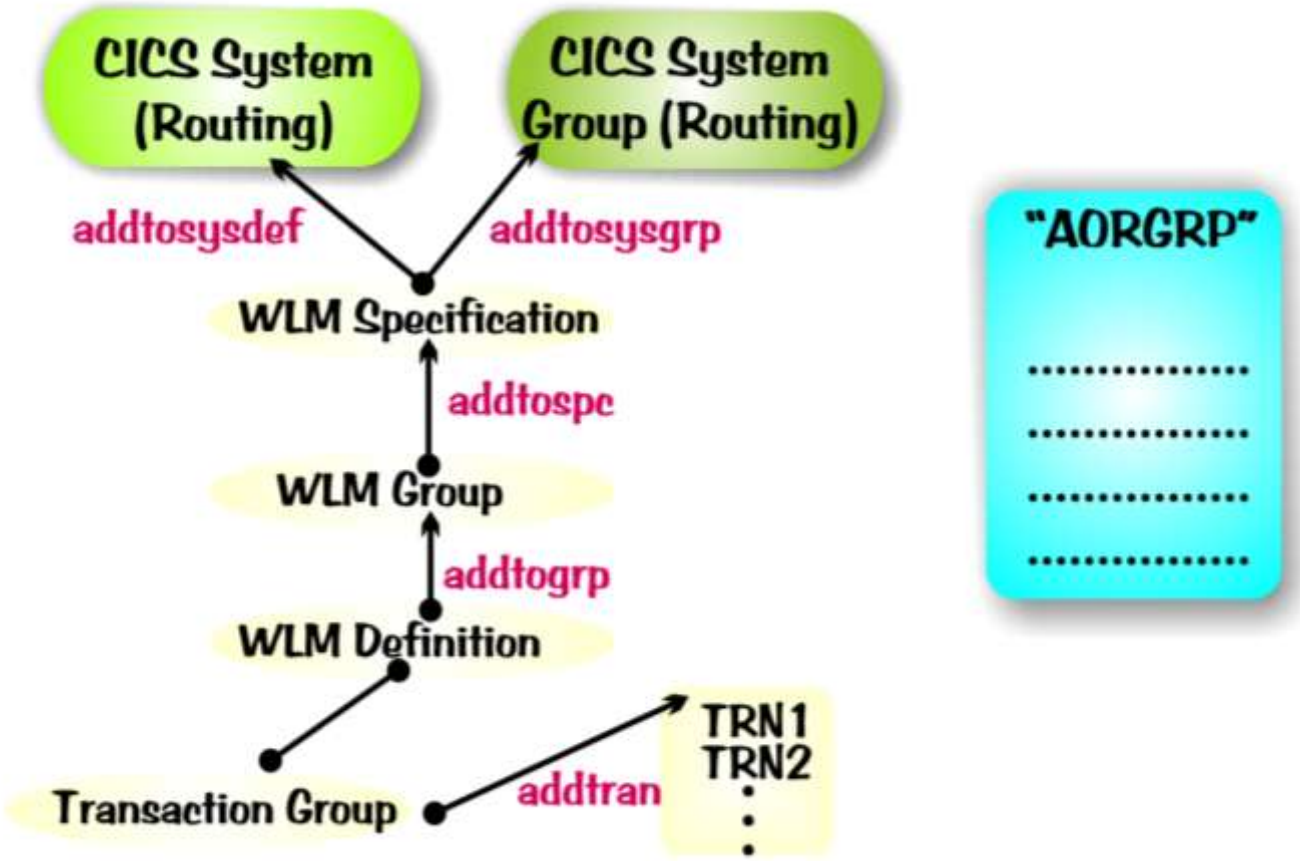


Enhanced WLM

- When a target region is running in **optimized mode**, the target regions maintain the task count and other health characteristics using the CICS RS domains services.
- The counts include all tasks in the CICS region, not just those that are dynamically routed.
- The load value for the CICS region, with its basic health status, is periodically broadcast to the coupling facility, where it is available for interrogation by other CICS regions and CMASs.
- If region status data is available, CPSM WLM uses the data when it makes its dynamic routing decision.
- For sysplex optimized workloads, routing regions review the same status data in the coupling facility for a potential target region regardless of which CMAS manages it. As a result, the routing region is using status data that might be updated many times a second to evaluate a target region, rather than status data that might be up to 15 seconds old. The refresh interval can vary from 2 seconds down to 1 millisecond. As the scale of this value is reduced, the usage effect on the coupling facility increases. Choose a value that provides a balance between workload throughput and the effect on the coupling facility. The default refresh value is 200 milliseconds. In an environment in which all routing targets are in a similar health and connectivity state, the spread of work across the workload target scope is more evenly distributed than in non-optimized mode.
- If the coupling facility is not available, workload routing is managed by CICSPlex SM Workload Manager using z/OS data spaces owned by a CMAS to share crossregion load and status data.

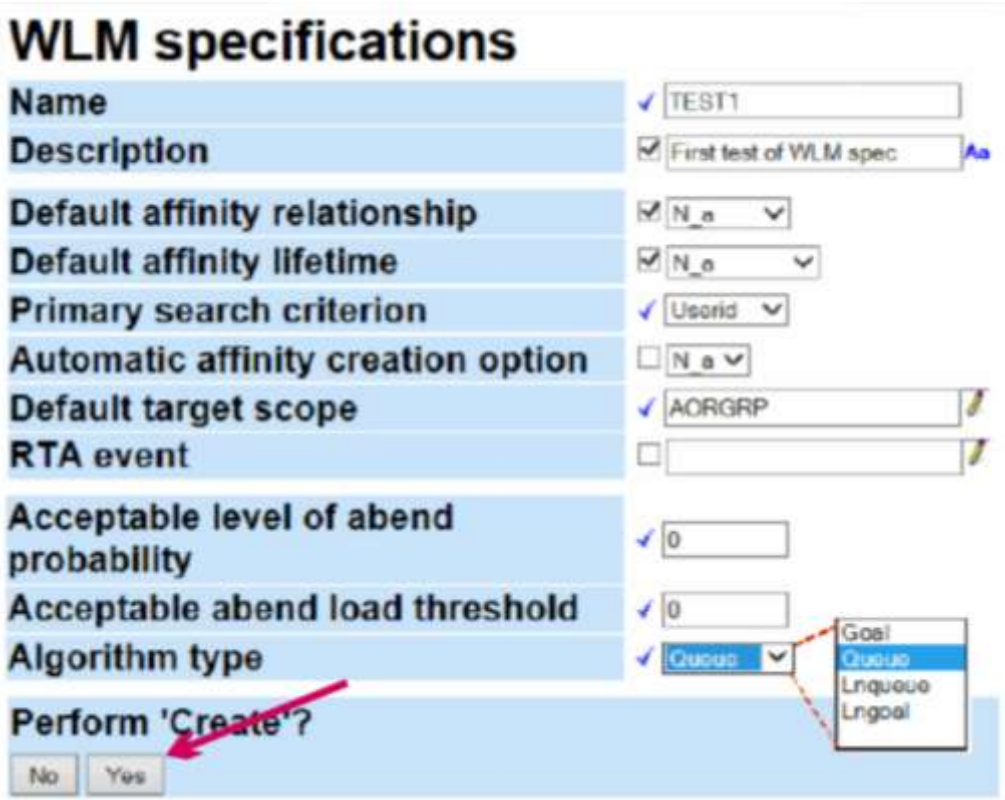
- **What is "Optimized Mode"?**
  - "Optimized Mode" is the phrase used to describe the state of the CPSM WLM and its Workload when running with a Regions Status server collecting health characteristics to a CFDT. The CICSplex and Target MASs must be defined (or inherit) some characteristics (listed later in topic). Naturally, the infrastructure must be in place.
  - To optimize workload routing in a sysplex, you must configure and monitor a **region status (RS) server**, as part of a coupling facility data table. Full workload optimization takes place automatically when all workload regions are migrated to CICS TS for z/OS, Version 4.1 or higher, and when a region status (RS) server is started in the same z/OS image as each region in the workload in the CICSplex.

WLM Definition Hierarchy



WLM Administration View

WLM Specification



WLM Specification

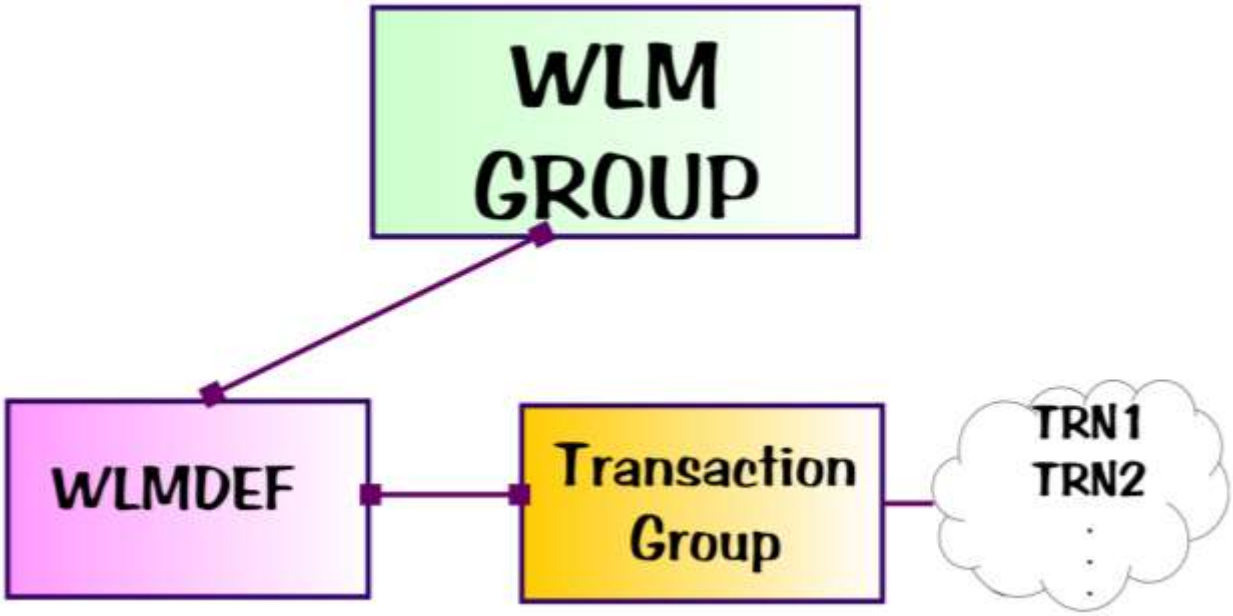
- The Workload specification contains the name of the CICS Group of CICSs to be used as Target CICSs. It also contains a set of default characteristics.

- The Algorithm to be used to make the target selection is specified here. The “Queue” type is recommended to start. It allows WML to make the selection on the health information, rules supplied with the WLM specification, and a calculation the size of the “work to do queues” in each CICS.

- The Algorithm may also specify “Goal” mode. This specification makes the target selection as described above and in addition, considers what target is most likely to meet the z/OS WLM goals. Goal mode requires that the transactions be defined in z/OS WLM classes with Average response time goals.

- CPSM WLM is enhanced at V4 by the introduction of two new routing algorithms that exclude the connection type as a weighting factor in decisions to direct work requests to a target region.

WLM Definitions and Affinities / Separation



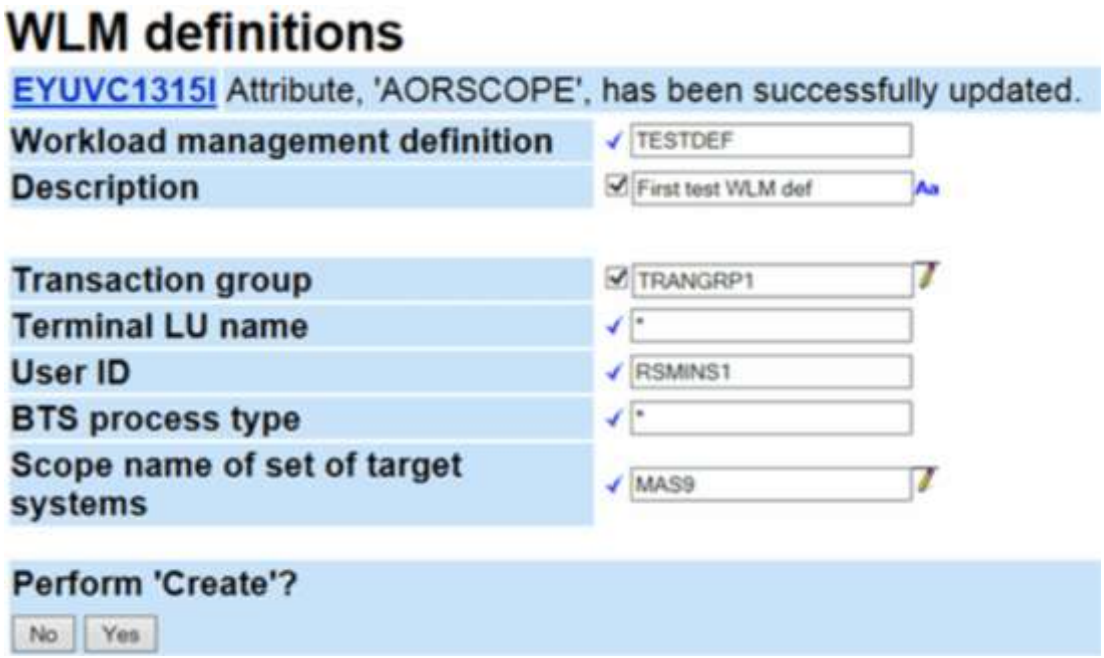
WLM Definitions and Affinities / Separation

- The WLM “Rules” to be applied to the “Workload” consist of 2 definitions associated with a WLM Group.

- **The Work Load Definition (WLMDEF)** is used predominantly to supply separation characteristics and associate the Transaction Group.

- **The Transaction Group definition (TRANGRP)** is used to supply additional characteristic such as affinity relations to be applied to a group of transactions. The transaction names are ADDed to the TRANGRP.

WLMDEF


WLM definitions
EYUVC1315I Attribute, 'AORSCOPE', has been successfully updated.
Workload management definition
TESTDEF
Description
First test WLM def
Transaction group
TRANGRP1
Terminal LU name
*
User ID
RSMINS1
BTS process type
*
Scope name of set of target systems
MAS9
Perform 'Create'?
No
Yes

WLMDEF

- The “WLM definition” contains the name of the associated “Transaction group”.
- This is where you provide the “Terminal LU name”, “User ID”, and “BTS process type” for work separation, and the scope (target).
- These fields cannot be blank. They can be wild carded.

WLM Affinities

Affinity Relation	Affinity Lifetime	
BAPPL	SYSTEM ACTIVITY	PERMANENT PROCESS
GLOBAL	SYSTEM	PERMANENT
LOCKED	UOW	
LUNAME	SYSTEM	PERMANENT
USERID	SYSTEM	PERMANENT

WLM Affinity Relations

When a transaction is associated with an affinity, the affinity relation determines how the dynamic routing program selects a target region for an instance of the transaction.

Global
A group of transactions, in which all instances of all transactions in the group that are initiated from any terminal, or are BTS or Link3270 transactions, must execute in the same target region for the lifetime of the affinity.

BAPPL
All instances of all transactions in the group are associated with the same CICS Business Transaction Services (BTS) process. Many different user IDs and terminals associated with the transactions might be included in this affinity group.

LOCKED
All instances of transactions in the group that are associated with dynamically-linked programs that have the same unit of work must run in the same target region for the lifetime of the unit of work.

LUname
A group of transactions, in which all instances of all transactions in the group that are initiated from the same terminal must execute in the same target region for the lifetime of the affinity.

User ID
A group of transactions, in which all instances of the transactions that are initiated from a terminal and executed on behalf of the same user ID, must execute in the same target region for the lifetime of the affinity.

WLM Affinity Lifetimes

The affinity lifetime determines when the affinity is ended. An affinity lifetime can be classified as one of:

System
The affinity lasts for as long as the target region exists and ends whenever the target region terminates, at a normal, immediate, or abnormal termination. The resource shared by transactions that take part in the affinity is not recoverable across CICS restarts.

Permanent
The affinity extends across all CICS restarts. The resource shared by transactions that take part in the affinity is recoverable across CICS restarts. This affinity is the **most restrictive** of all the inter-transaction affinities.

Process
The affinity exists until the BTS process completes.

Activity
The affinity exists until the BTS activity completes.

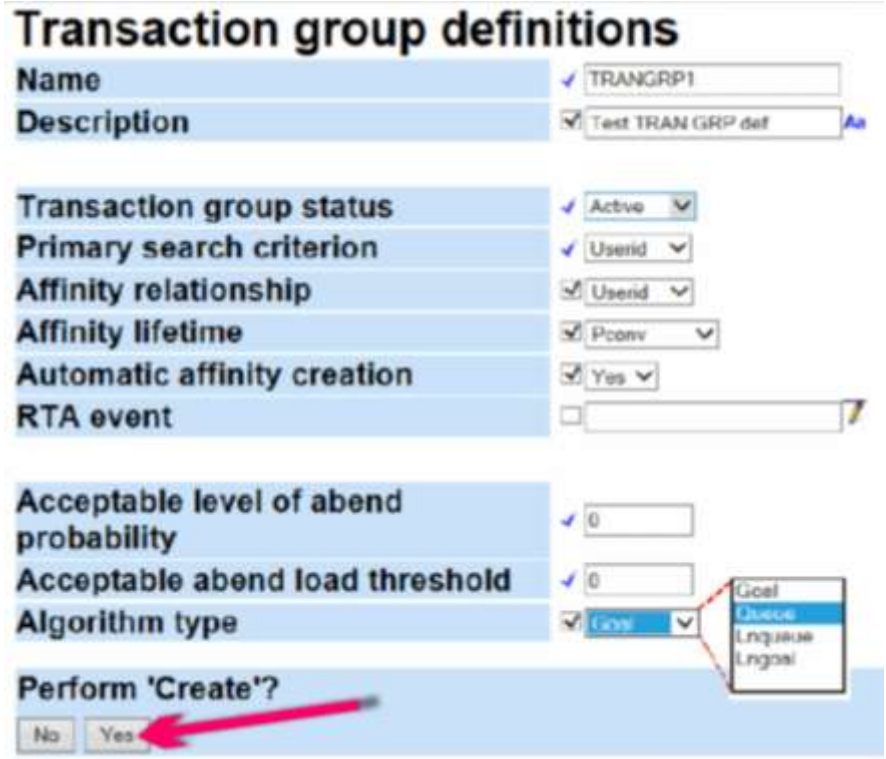
UOW
The unit of work ends either when a CICS SYNCPOINT or ROLLBACK request is run, or when the originating task terminates.

Pseudoconversation
The LUname or user ID affinity lasts for the whole pseudoconversation and ends when the pseudoconversation ends at the terminal.

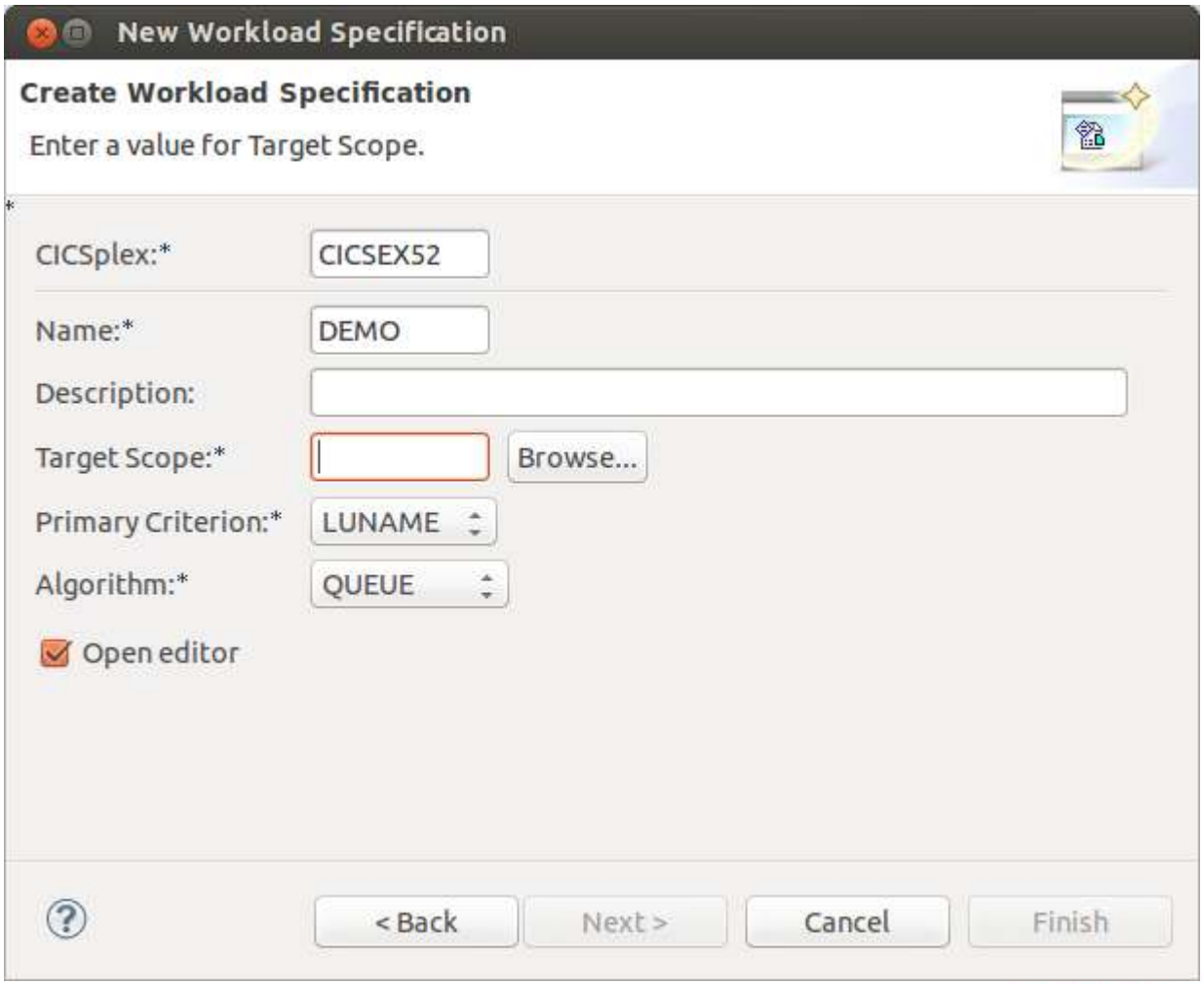
Logon
The LUname affinity lasts for as long as the terminal remains logged on to CICS and ends when the terminal logs off.

Signon
The user ID affinity lasts for as long as the user is signed on, and ends when the user signs off.

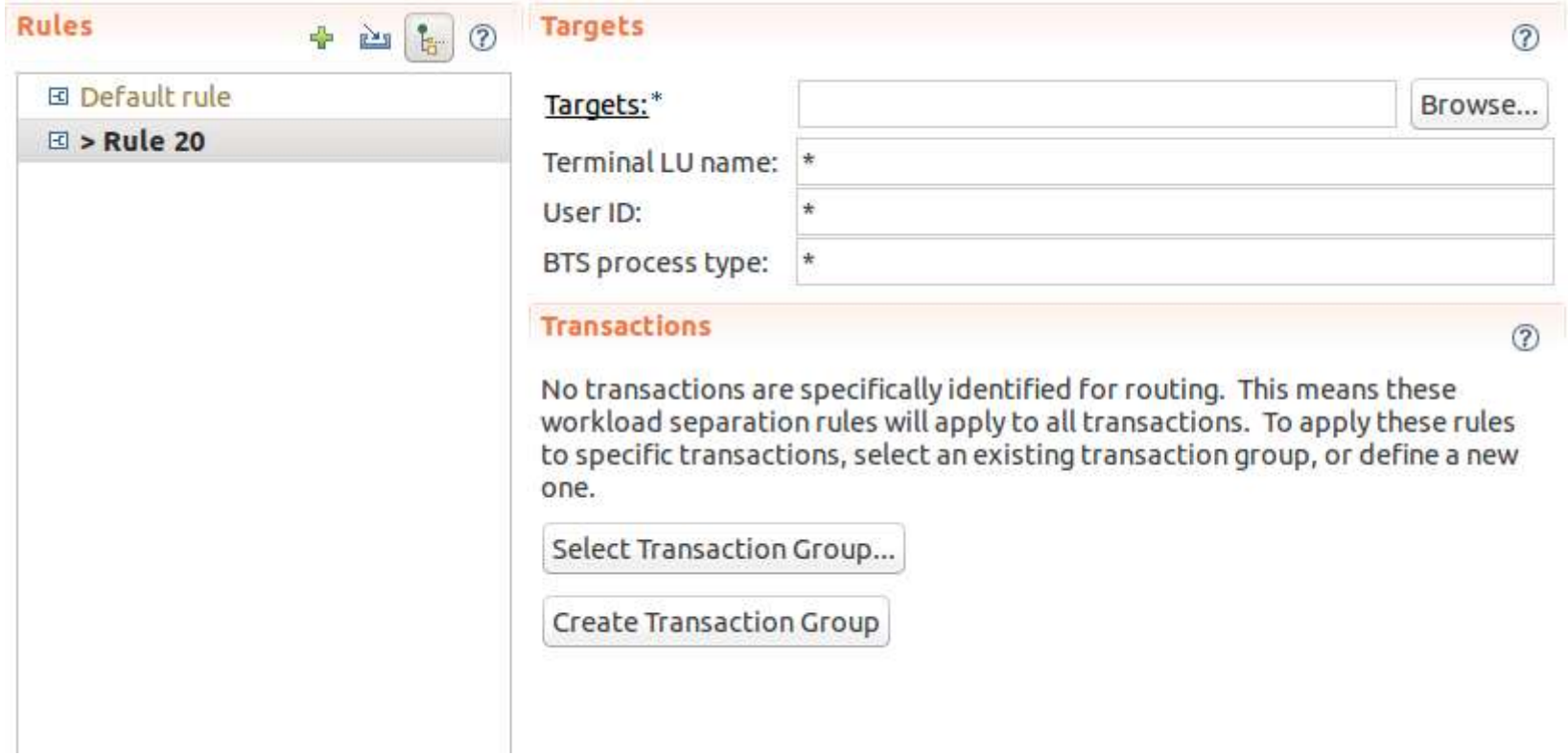
WLM Transaction Groups



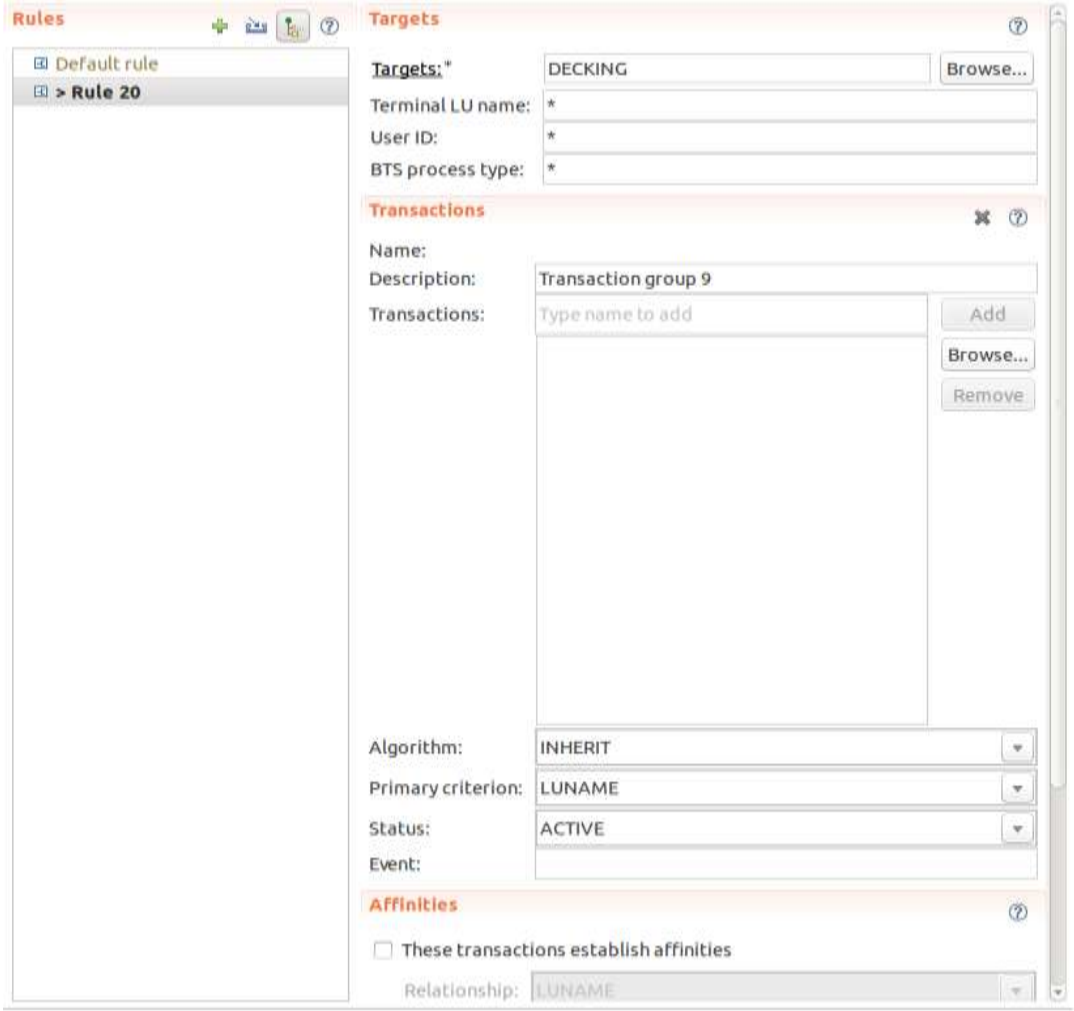
CICS Explorer: WLMSPEC



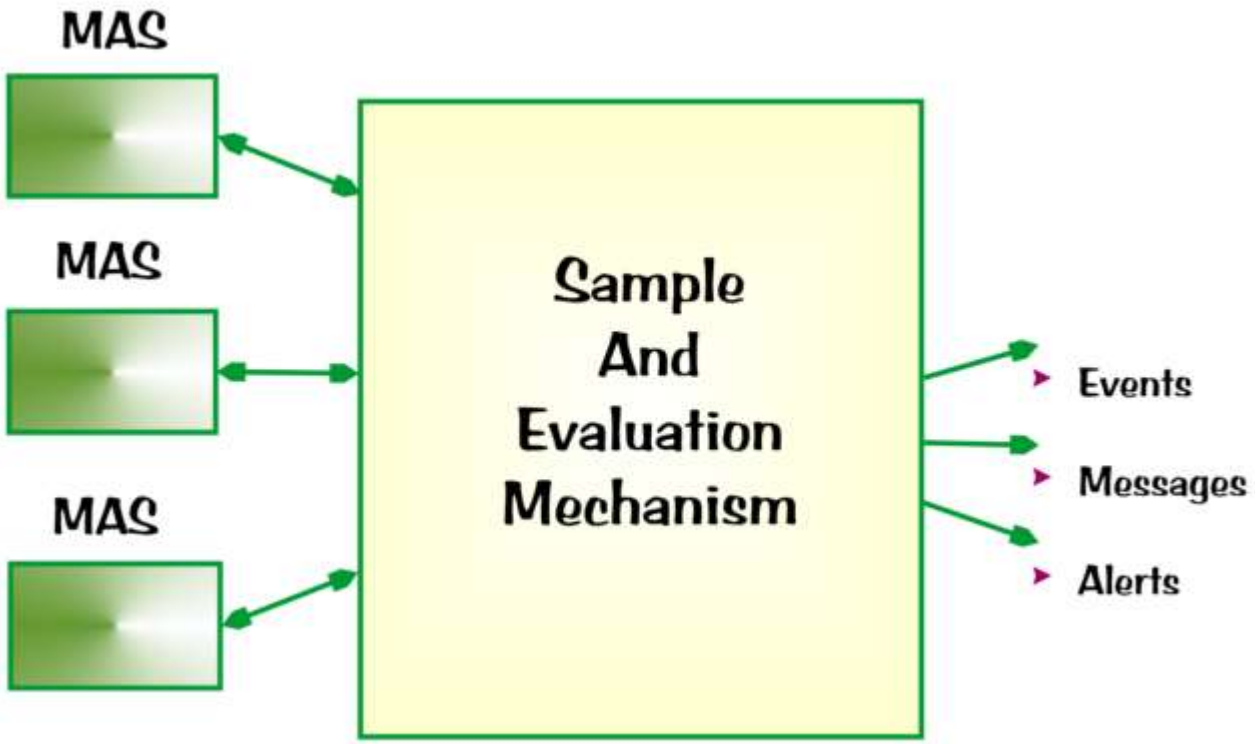
CICS Explorer: WLMDEF (Rule?)



CICS Explorer: Transaction Group



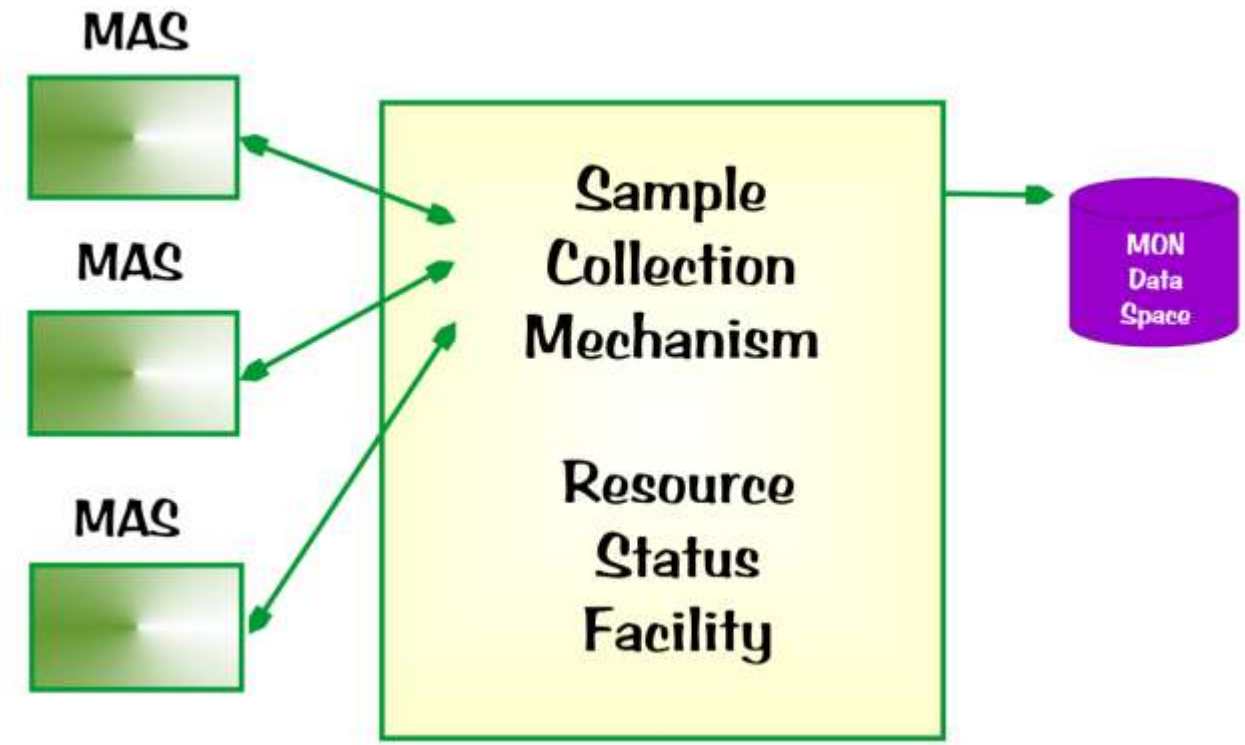
Real Time Analysis (RTA)



Real Time Analysis (RTA)

- Notifies you when a CICS resource is not in the desired state.
- When CICS is defined as a MAS, specify “Analysis YES”.
  - Watches for major problems (e.g. SOS, Max Task, etc.) by default.
- **RTA specification (RTASPEC)**
  - Use to watch the state of managed resources such as files and tasks.
  - Use **STATDEF** to analyse user resources.
- Notification types:
  - **EVENT**: CICSPlex SM flag – interrogate to determine value.
  - **External message**: Fixed format – sent to system console.
  - **Netview Alert**: alert sent to Netview.

Monitor (MON)


MAS
MAS
MAS
Sample
Collection
Mechanism
Resource
Status
Facility
MON
Data
Space

Monitor (MON)

- Collects statistics.
- Data used by RTA or saved for other uses.
- Statistics captured on a “device-type” basis.
- **Monitor specification (MONSPEC)**
  - Specify non-zero sample time.
- Devices separated into 10 classes:
  - Seven “instance” classes representing devices that have many instances within a CICSplex.
  - Use a **monitor definition (MONDEF)** to monitor devices within these instance classes.

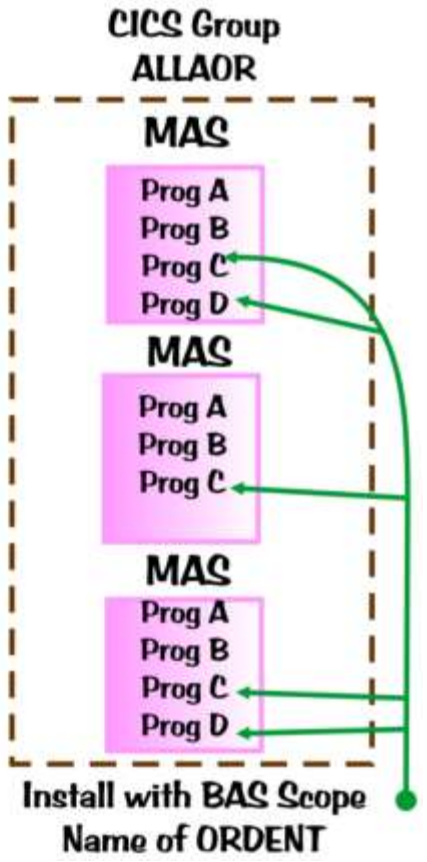
Business Application Services (BAS)

- BAS provides the capability of using CPSM as a single point of definition.
- Resources can be defined, using BAS, within the CICSplex and directed to the appropriate CICS region.
- Resource definitions made using BAS are stored on the CMASs EYUDREP.
- Resources are installed using a set of BAS selection rules.
- Can be a combination of CSD and DREP resources.
- When using BAS, the RESDESC or RASGNDEF definitions identify the CICS that resources are to be installed in.
- A resource need only be defined once. It can be “associated” with multiple Groups and multiple RESDESCs or RASGNDEFs.

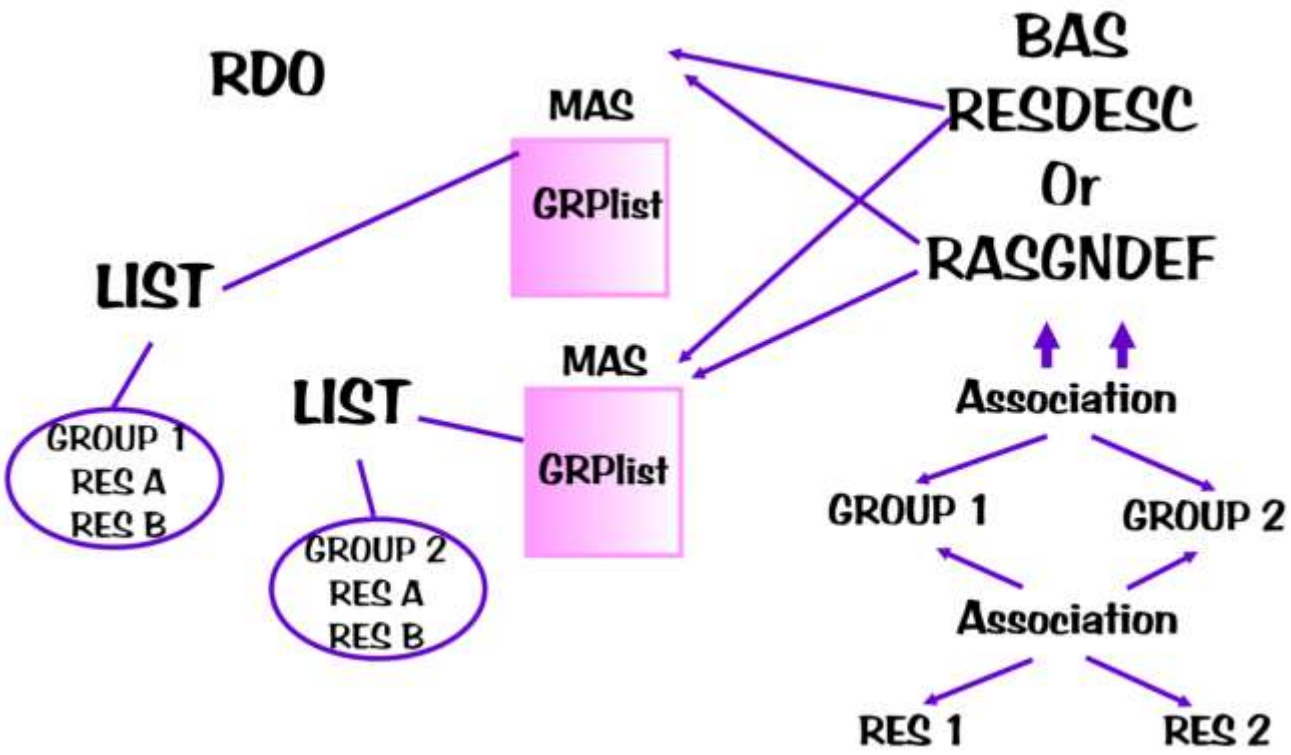
Business Application Services (BAS)

SCOPE = ALLAOR
Program Prog*
11 instances in result set

SCOPE = ORDENT
Program Prog*
5 instances in result set



Business Application Services (BAS)



CICSPlex SM interfaces

- Batch Repository Facility (BATCHREP)
- Web User Interface (WUI)
- CICS Explorer

Execute BATCHREP via WUI

Execute

Input data set name	✓	EJG.BATCHREP.JCL
Input member name	☑	BATCHREP
Print class	☑	Q
Print node	✓	LOCAL
Destination user ID	✓	EJG

Perform 'Execute'?

No Yes

Batch Repository Facility (BATCHREP)

```
 File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
------------------------------------------------------------------------------
EDIT       EJG.BATCHREP.JCL(BATCHREP) - 01.08               Columns 00001 00072
Command ===> _____________________________________________ Scroll ===> CSR
****** ***************************** Top of Data ********************************
000001 ***
000002 ***          BATCHREP INPUT FILE
000003 ***
000004 OUTPUT DATASET DSNAME(EJG.BATCHREP.JCL(OUTPUT));
000005 CONTEXT CCVT51C;
000006 DUMP CPLEXDEF CICSPLEX(CCVPLEX*);
000007 CONTEXT CCVPLEXI;
000008 DUMP CSYSDEF NAME(CCVT51I);
000009 ***
****** **************************** Bottom of Data ******************************
```

BATCHREP JCL

```
 File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
------------------------------------------------------------------------------
EDIT       EJG.BATCHREP.JCL(EYU9XDBC) - 01.01              Columns 00001 00072
Command ===> _____________________________________________ Scroll ===> CSR
****** ******************************** Top of Data ********************************
000001 //EJGA     JOB 'BACHREP RUN',
000002 //         CLASS=A,MSGCLASS=H,NOTIFY=&SYSUID
000003 //*
000004 //DFHLIST  EXEC PGM=EYU9XDBC,REGION=4M
000005 //STEPLIB  DD DISP=SHR,DSN=CICS.V670.CPSM.SEYUAUTH
000006 //         DD DISP=SHR,DSN=CICS.V670.CPSM.SEYULOAD
000007 //SYSPRINT DD SYSOUT=*
000008 //SYSABEND DD SYSOUT=*
000009 //SYSIN    DD *
000010 CMASNAME(CCVT51C)
000011 EXECUTE
000012 INPUTDSN(EJG.BATCHREP.JCL)
000013 INPUTMEMBER(OUTJOB)
000014 OUTPUTUSER(EJG)
000015 PRINTNODE(LOCAL)
000016 /*
****** ******************************* Bottom of Data ********************************
```

BATCHREP output

```
  Display  Filter  View  Print  Options  Search  Help
-------------------------------------------------------------------------------
SDSF JOB DATA SET DISPLAY - JOB CCVT51C  (STC00776)      DATA SET DISPLAYED
COMMAND INPUT ===>                                          SCROLL ===> CSR
PREFIX=CCVT5*  DEST=(ALL)  OWNER=*  SYSNAME=FTS1
NP    DDNAME   StepName ProcStep DsID Owner    C Dest          Rec-Cnt Page
      JESMSGLG JES2                2 STC@CICS K                   352
      JESJCL   JES2                3 STC@CICS K                    66
      JESYSMSG JES2                4 STC@CICS K                     2
      CEEMSG   CCVT51C           101 STC@CICS K                     0
      CEEOUT   CCVT51C           102 STC@CICS K                     0
      DFHCXRF  CCVT51C           103 STC@CICS K                     0
      EYULOG   CCVT51C           104 STC@CICS K                 1,662
      MSGUSR   CCVT51C           105 STC@CICS K                 5,630
      COUT     CCVT51C           108 STC@CICS K                     0
      CRPO     CCVT51C           109 STC@CICS K                     0
      S0000003 CCVT51C           112 STC@CICS Q EJG                11
      S0000005 CCVT51C           114 STC@CICS Q EJG                 7
      S0000007 CCVT51C           116 STC@CICS Q EJG                 7
      S0000009 CCVT51C           118 STC@CICS Q EJG                 7
      S0000011 CCVT51C           120 STC@CICS Q EJG                 7
      S0000013 CCVT51C           122 STC@CICS Q EJG                 7
      S0000015 CCVT51C           124 STC@CICS Q EJG                 7
      S0000017 CCVT51C           126 STC@CICS Q EJG                 7
      S0000019 CCVT51C           128 STC@CICS Q EJG                78
      S0000021 CCVT51C           130 STC@CICS Q EJG                78
      S0000023 CCVT51C           132 STC@CICS Q EJG                79
```

BATCHREP Dump

```
CONTEXT CCVT51C;
 CREATE CPLEXDEF
                    CICSPLEX(CCVPLEXI)
                    SECCMDCHK(NO)
                    SECRESCHK(NO)
                    DESC(Default CICSplex from EYUDREP initialization)
                    INTVL(480)
                    SECBYPASS(NO)
*                   STATUS(1)
                    TMEZONEO(0)
                    TMEZONE(Z)
                    DAYLGHTSV(NO)
                    RODMPOP(NO)
                    DESCCODEPAGE(37)
*                   STATE(ACTIVE)
                    READRS(200)
                    UPDATERS(16)
*                   CHANGEAGENT(DREPAPI)
*                   CREATETIME(11/30/2011-08:34:52.9339)
*                   CHANGEUSRID(RJA)
*                   CHANGEAGREL(0680)
                    TOPRSUPD(5)
                    BOTRSUPD(10)
                    RSPOOLID(DFHRSTAT)
                    ;
```

BATCHREP Dump

```
CONTEXT CCVPLEXI;
 CREATE CSYSDEF
                    NAME(CCVT51I)
                    DYNROUTE(NO)
                    RETENTION(*)
                    CICSSAMP(*)
                    GLBLSAMP(*)
                    DBXSAMP(*)
                    CONNSAMP(*)
                    FILESAMP(*)
                    JRNLSAMP(*)
                    PROGSAMP(*)
                    TERMSAMP(*)
                    TDQSAMP(*)
                    TRANSAMP(*)
                    MONSTATUS(INHERIT)
                    RTASTATUS(NO)
                    WLMSTATUS(NO)
                    SECCMDCHK(INHERIT)
                    SECRESCHK(INHERIT)
                    SECBYPASS(INHERIT)
                        .
                        .
                        .
                        .
                        .
```

BATCHREP Dumping records as a backup

- To back up all of the workload management records in EYUDREP, use the following input data set member:

```
CONTEXT CICSPLEX;
DUMP WLMSPEC NAME(*);
DUMP WLMGROUP NAME(*);
DUMP WLMDEF NAME(*);
DUMP TRANGRP NAME(*);
DUMP DTRINGRP TRANGRP(*);
DUMP WLMINGRP GROUP(*);
DUMP WLMINSPC NAME(*);
```

Web User Interface (WUI)

- The WUI server is the entry interface for online CICS and CPSM resource management.
- The CICS Explorer will connect to the WUI server.
- The WUI server is a standard CICS region with the WUI interface application installed and configured.
- The WUI interface application is a customizable interface to support platform independent browser connection.
- The WUI server address space should be dedicated, but can be shared by products such as CICS Configuration Manager.
- The product supplied menus and view sets can be customized.
- Any browser that can launch an HTTP or HTTPS session can be used.

Insert WUI demo here!

CICS Explorer

- The CICS Explorer is a system management tool that is designed to provide a simple, easy to use way of managing one or more CICS systems.
- The CICS Explorer - “the new face of CICS” - is the new systems management tool framework for CICS.
- It provides an intuitive, easy-to-use way of managing one or more CICS regions.
- The CICS Explorer supports all of the new functions - for example resources associated with event processing and resource bundles.
- The CICS Explorer acts as a point of integration for other CICS tools.

Insert CICS Explorer demo here!

Summary

- CICSPlex SM is used to configure and control the operation of CICS regions and the applications running in them.
- Renewed interest in CICSPlex SM appears to be due to the ability to connect to multiple regions with a single CMCI connection.
- New cloud features in CICS require the CICS Explorer to define and a CICSplex to deploy.