

# CICS Transaction Server for z/OS V6.1

## - Upgrading Considerations

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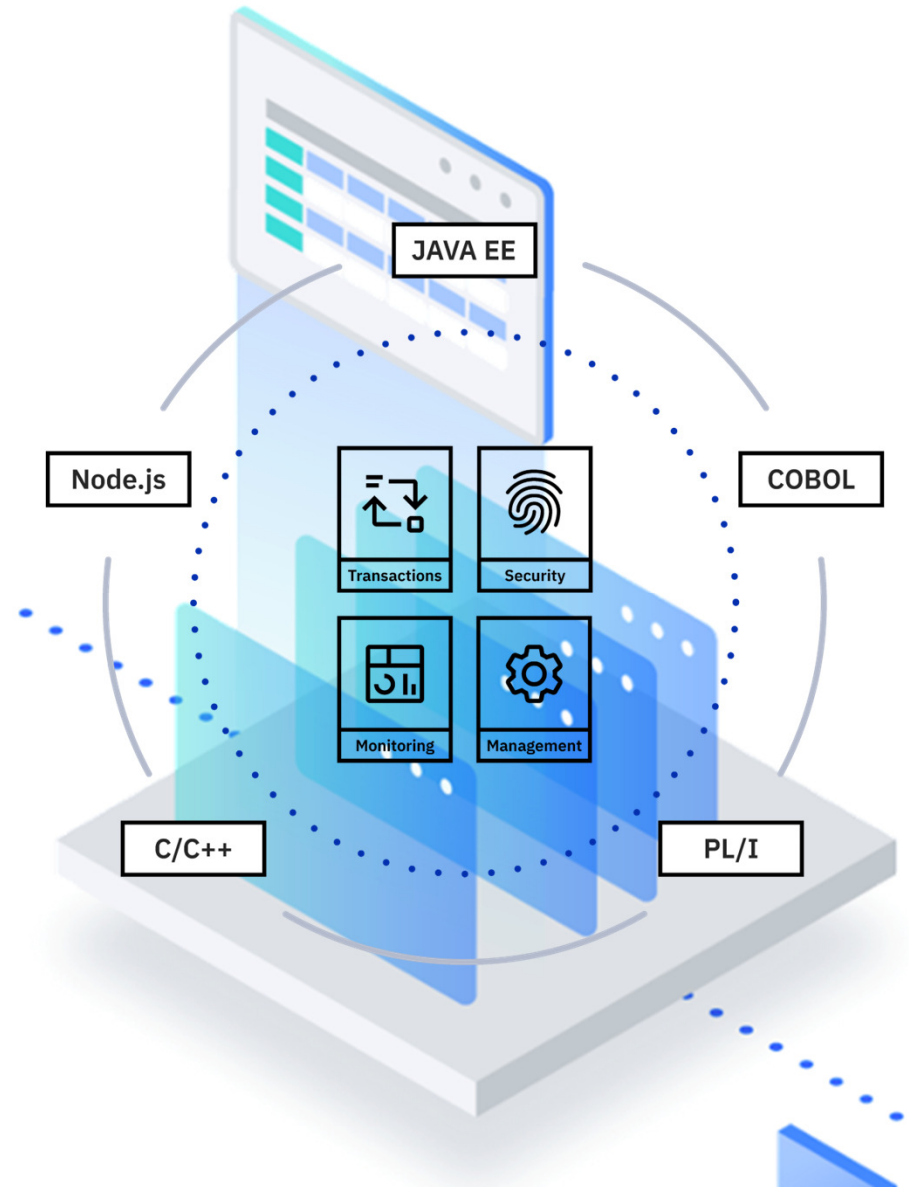


# Modernizing applications in CICS Transaction Server

CICS Transaction Server (CICS TS) is flexible with support for Java™ APIs and frameworks such as Jakarta®, Spring Boot®, Eclipse MicroProfile®, and the popular Node.js®, together with traditional compiled languages like COBOL, C/C++, and PL/I, and Assembler.

CICS applications share core programming contexts such as transactions, security, monitoring and management.

CICS applications can be modernized to provide APIs, event streams, AI at scale, and more.



# ***Planning for the Upgrade***

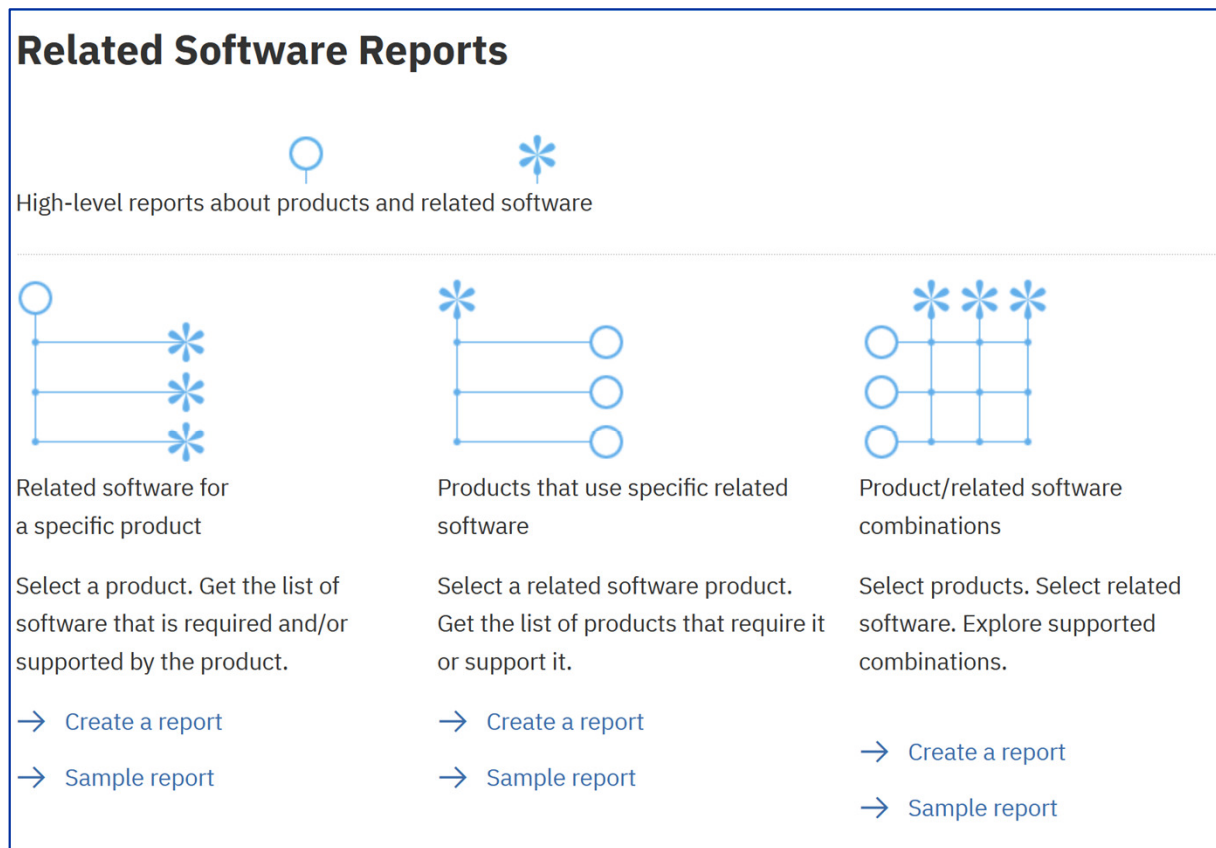
IBM

# Planning for the upgrade

- Hardware pre-requisites
  - The minimum required hardware prerequisite is IBM zEnterprise EC12 or subsequent 64-bit z/Architecture processors
- Operating System pre-requisites
  - Requires z/OS V2.3 or above
  - APAR PH39134 for z/OS 2.4 and z/OS 2.5 is required for LE to support instruction execution protection (IEP)

# Checking system requirements

- For the latest information about the hardware and software requirements and the service required, use [Compatibility reports](#)



# Checking system requirements

• <https://www.ibm.com/software/reports/compatibility/clarity-reports/report/html/softwareReqsForProduct?deliverableId=A59B6800AFDD11EAB9117899910938C8&osPlatform=z/OS>

Java SDK

Filter

Supported Software	Version	Prerequisite Minimum	Product Minimum	Components	Operating System Restrictions?	Notes	Details
Developer Kit for Java	V8 R0 and future fix packs	V8 R0	6.1	<div></div>	No	No	<div>View</div>
IBM Semeru Runtimes	11.0.15.0 and future fix packs	11.0.15.0	6.1	<div></div>	No	No	<div>View</div>
	11.0.16.1 and future fix packs	11.0.16.1	6.1	<div></div>	No	No	<div>View</div>

Application Lifecycle Management

Java SDK

Application Servers

Management Tools

Compilers and Languages

Message Oriented Middleware

Connectors

Problem Determination Tools

Databases

Security Management

Decision Server

Back to top

Development Tools

Management Tools

Filter

Supported Software	Version	Prerequisite Minimum	Product Minimum	Components	Operating System Restrictions?	Notes	Details
CICS Configuration Manager for z/OS	5.4 and future fix packs	5.4	6.1	<div></div>	No	(2)	<div>View</div>
CICS Deployment Assistant for z/OS	5.3 and future fix packs	5.3	6.1	<div></div>	No	(1)	<div>View</div>
CICS Online Transmission Time Optimizer	1.2 and future fix packs	1.2	6.1	<div></div>	No	No	<div>View</div>
CICS VSAM Recovery	5.1 and future fix packs	5.1	6.1	<div></div>	No	No	<div>View</div>
	5.2 and future fix packs	5.2	6.1	<div></div>	No	No	



# Check compatibility with your vendor products

- Is the product supported without change on your target release
- Does the product require a compatibility fix, either to CICS TS or to the product itself
- Must the product be upgraded
- Always ask your vendor the following questions to determine if the vendor product is compatible with CICS
  - Does the current version of the product support the target CICS release
  - Are any PTFs required in the product or in CICS
  - Can a new version of code be installed in current release
  - What actions (Hold actions) need to occur
    - For example, recompiling exits or upgrade steps

# ***Changes for CLCS TS V6.1***

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# Changes to security

## - TLS

- Support to update to TLS 1.3
  - Requires minimum z/OS 2.4
- MAXTLSLEVEL system initialization parameter
  - New
- ENCRYPTION system initialization parameter
  - Removed
- CIPHERS – Numeric ciphers deprecated
- MINTLSLEVEL system initialization parameter
  - New Option
    - TLS13
  - Removed Options
    - TLS10
    - TLS10ONLY
- Stabilized Option
  - TLS 1.1
- Default cipher file for outbound web requests
  - New

# Changes to security

## - TLS - Default cipher file for outbound web requests

- A new feature is provided to enable CICS to use a default set of ciphers in lieu of the 2-digit ciphers (3538392F3233)
  - `togglecom.ibm.cics.web.defaultcipherfile={true|false}`
  - The cipher file is `defaultciphers.xml`
- The use of a default cipher file applies to
  - Outbound HTTPS requests that are made by using EXEC CICS WEB OPEN or EXEC CICS INVOKE SERVICE
    - When those commands do not specify a set of ciphers to use via the CIPHERS or URIMAP
    - A greater set of ciphers can be used for outbound requests without having to create a URIMAP for each potential endpoint
- To use this feature
  - The feature toggle must be set to true and the defaultciphers.xml file must exist in the `USSCONFIG/security/ciphers` directory

# Changes to security

- Removal of authorization check for Category 1 transactions
- Category 1 transactions are part of CICS and the CICS region user ID is the only ID configured to run Category 1 transactions
- If any other user attempts to run a Category 1 transaction directly, the transaction abends with type AXS1
- ENCRYPTION system initialization parameter
  - Removed
  - Use the MINTLSLEVEL parameter instead
- Removal of XSNEX global user exit

# Changes to CICS API...

- ASSIGN - New Option: GMEXITOPT
- CHANGE PASSWORD/CHANGE PHRASE and
- VERIFY PASSWORD/VERIFY PHRASE
  - Changed
    - New NOTAUTH with RESP2 value of 1
      - The PASSWORD field, the NEWPASSWORD field, or both are blank
    - New NOTAUTH with RESP2 value of 17
      - The USERID is not authorized to use the application
- GETMAIN/GETMAIN64
  - New Option: EXECUTABLE
    - Specifies that the storage should be obtained from one of the DSAs that are never protected from instruction execution
- START CHANNEL - New Options:
  - NOCHECK
    - Specifies that, for a remote system, CICS improves performance of the START command by providing less error checking and slightly less function
  - PROTECT
    - Specifies that the new task is not started until the starting task has taken a sync point

# Changes to CICS API

- WEB OPEN
  - Changed: WEB OPEN URIMAP
    - Uses the cached IP address and HTTP information obtained with the initial connection, for subsequent outbound web requests using the same URIMAP
  - Deprecated: CIPHERS
    - Option no longer allowed on new compiles. The CIPHERS option is deprecated for existing programs when MAXTLSLEVEL is TLS12 and ignored for existing programs when MAXTLSLEVEL is TLS13
- DFHEIENT macro
  - New Option: DATA\_EXECUTABLE
    - To request that dynamic storage is not protected from instruction execution
- WRITE OPERATOR
  - New Option: CONSNAM
    - Enables messages to be sent a specific console identified by CONSNAM
  - Changed
    - New INVREQs with RESP2 values of 7 and 8
      - The CONSNAM length is not valid. The CONSNAM value must be 2 to 8 characters in length
      - The CONSNAM value is not valid
  - New ERROR with RESP2 value of 1
    - Command (with CONSNAM) has returned an error

# Changes to JCICS API

- Container
  - Removed Method: put(String stringData)
- Program
  - Removed Methods from the class com.ibm.cics.server.Program
    - link(com.ibm.record.IByteBuffer)
    - link(com.ibm.record.IByteBuffer, com.ibm.record.IByteBuffer)
- Task
  - Removed Methods
    - disableTaskTrace()
    - enableTaskTrace()
- IsCICS
  - New Method: getApiStatus (boolean lateBind)
- CICSResourceManager
  - Removed Methods:
    - checkMultiCast(InetAddress, byte)
    - checkAwtEventQueueAccess()
    - checkMemberAccess(Class<?> theClass, int)
    - checkSystemClipboardAccess()
    - checkTopLevelWindow(Object window)
- TerminalPrincipalFacility
  - Removed Method: waitTerminal()
- HttpHeaders
  - Removed Method: getHeader

# Changes to SIT parameters

- New:
  - EPCDSASZE
  - EUPDSASZE
  - PCDSASZE
  - PUDSASZE
  - MAXTLSLEVEL
    - Specifies the maximum TLS protocol for secure TCP/IP connections
  - RESOVERRIDES
    - Specifies the name of the resource overrides file
  - SDTMEMLIMIT
    - Specifies a limit to the amount of storage above the bar that is available for shared data tables to use for control information
- Changed
  - CPSMCONN New Option: [SMSSJ](#)
    - CPSMCONN=SMSSJ
      - Initializes a single CICS region as a CICS SMSS
      - Automatically creates a Liberty JVM server named [EYUCMCIJ](#) as the CMCI JVM server
  - DTRPGM Changed
    - When DTRPGM=NONE is specified, no routing program is invoked
  - MINTLSLEVEL
    - New Option: [TLS13](#)
    - Stabilized Option: TLS11
    - Removed Options
      - TLS10
      - TLS10ONLY



# Changes to resource definitions

- DB2ENTRY
  - New Attribute
    - [SHARELOCKS](#)
    - APAR PH47996 required
- TCPIP SERVICE
  - Changed
    - When PROTOCOL(HTTP) and SSL(YES) are specified
      - CIPHERS defaults to [defaultciphers.xml](#)
- URIMAP
  - Changed
    - Added support for enabling multiple client URIMAPs that point to the same endpoint in a CICS region

# Changes to resource definitions

## - CICS-supplied resource definition *Groups*

- DFH\$DB2 - Changed
  - DB2ENTRY definition has a new attribute SHARELOCKS
  - SHARELOCKS(NO) is the default
- DFH\$SOT - Changed
  - The CIPHERS value for TCPIP SERVICE HTTPSSL is changed to [defaultciphers.xml](#)
- DFHDBCTL - Changed
  - Transaction CDBT is changed from SPURGE(NO) to SPURGE(YES)
- DFHBMS – Changed
  - Several transactions have been removed from this group
  - These transactions are now automatically installed
- DFHCLNT – Changed
  - Transaction CCIN has been removed from this group
  - It is now automatically installed
- DFHHARDC – Changed
  - Transaction CSPP has been removed from this group
  - It is now automatically installed

# Changes to resource definitions

## - CICS-supplied resource definition *Groups*

- DFHJAVA – Changed
  - Transactions CJSA and CJSU are changed
  - From SHUTDOWN(DISABLED) to SHUTDOWN(ENABLED)
- DFHOPER – Changed
  - New program DFHLDMHT
- DFHPIPE - Changed
  - Program definitions are moved to this group
    - DFHWSATH, DFHWSATR, DFHWSATX and DFHPIRS
    - No longer need to install your own versions of these program definitions because DFHPIPE is part of [DFHLIST](#)
  - New transaction CPIW, a direct clone of CPIH, which is used to handle [WS-AT](#) protocol messages
- DFHIPECI – Changed
  - Transaction CIEP has been removed from this group
  - It is now automatically installed
- DFHISC – Changed
  - Several transactions have been removed from this group
  - These transactions are now automatically installed
- DFHPSSGN – Changed
  - Transaction CPSS has been removed from this group
  - It is now automatically installed

# Changes to resource definitions

## - CICS-supplied resource definition *Groups*

- DFHWSAT – Changed
  - Some program definitions are moved to group **DFHPIPE**
  - DFHWSATH, DFHWSATR, DFHWSATX and DFHPIRS
  - URIMAP DFHRSURI now specifies TRANSACTION(**CPIW**) instead of CPIH
    - This is the URIMAP used to match inbound WS-AT protocol messages
- DFHSECR - New
  - New journal DFHSECR for security request recording
- DFHCOMPJ - New
- DFHRSEND – Changed
  - Transaction CSRS has been removed from this group
  - It is now automatically installed
- DFHSPI – Changed
  - Transaction CATR has been removed from this group
  - It is now automatically installed
- DFHSTAND – Changed
  - Several transactions have been removed from this group
  - They are now automatically installed
- DFHWU – Changed
  - New transaction **CWDP**

# Changes to CEMT

- CEMT INQUIRE DB2ENTRY
  - New Option: SHARELOCKS
- CEMT INQUIRE DSAS
  - New Options: PCDSASIZE, PUDSASIZE, EPCDSASIZE, EPUDSASIZE
    - Support for Instruction Execution Protection
  - Removed Option: ETDSASIZE
- CEMT INQUIRE SYSTEM
  - New Options:
    - SDTMEMLIMIT
    - SRRTASKS
- CEMT INQUIRE TASK
  - New Option: SRRSTATUS
- CEMT PERFORM STATISTICS
  - New Option: CIPHER
- CEMT SET DB2ENTRY
  - New Option: SHARELOCKS
- CEMT SET DSAS – Changed
  - The DSAs that are covered by DSALIMIT and EDSALIMIT include the new DSAs that are never protected from instruction execution
- CEMT SET SYSTEM
  - New Option: SDTMEMLIMIT
- CEMT SET TASK
  - New Option: SRRSTATUS

# Changes to CICS SPI

- **NEW**

- [INQUIRE POLICY](#)
- [INQUIRE POLICYRULE](#)
- [INQUIRE SECRECORDING](#)
- [INQUIRE STORAGE64](#)

- **THREADSAFE**

- [INQUIRE TAG](#)
- [SET ASSOCIATION USERCORRDATA](#)
- [SET SECRECORDING](#)
- [SET TAGS REFRESH](#)

- **CHANGED:**

- [CREATE DB2ENTRY](#)
- [ENABLE PROGRAM](#)
- [EXTRACT STATISTICS](#)
- [INQUIRE ASSOCIATION](#)
- [INQUIRE DB2ENTRY](#)
- [INQUIRE FEATUREKEY](#)
- [INQUIRE STORAGE](#)
- [INQUIRE SUBPOOL](#)
- [INQUIRE SYSTEM](#)
- [INQUIRE TASK](#)
- [PERFORM STATISTICS](#)
- [SET DB2ENTRY](#)
- [SET SYSTEM](#)
- [SET TASK](#)
- [SET TRANSACTION](#)

# Changes to CICS monitoring

- DFHCICS
  - Enhanced to provide association data of DPL requests by EXCI clients
  - For Liberty the userID now reflects the final userID value, instead of the initial userID
- DFHSOCK
  - SOCNPSCT indicates the total number of requests made by the user task to create an outbound socket
  - SONPSHWM indicates the peak number of outbound sockets owned by the user task



# Changes to storage

- ETDSA – Removed
  - Storage that was allocated from this DSA is now allocated from the ECDSA
- PCDSA, PUDSA, EPCDSA, and EPUDSA – New
  - To enable the allocation of storage that is *not* protected from instruction execution
- Subpools LDPGM, LDEPGM, LDRES, LDERES, LDNRS, LDENRS, LDNUC, and LDENUC
  - Changed
  - These subpools are now allocated in PCSDA, PUDSA, and their equivalent extended DSAs
- These locations changed
  - CDSA becomes the PCDSA
  - ECDSA becomes the EPCDSA
  - SDSA becomes the PUDSA
  - ESDSA becomes the EPUDSA
- CDSA, SDSA, ECDSA, ESDSA locations
  - Changed
  - Loader Domain functions return the location of the program to the caller
    - ACQUIRE\_PROGRAM
    - RELEASE\_PROGRAM
    - INQUIRE\_PROGRAM
    - GET\_NEXT\_PROGRAM
    - GET\_NEXT\_INSTANCE
    - IDENTIFY\_PROGRAM

# Changes to installing

- DFHEITAB and DFHEITBS modules are not LPA eligible
- Removed the DFHIFTG1 and DFHIFTGS installation jobs

# ***The Upgrade Process***

IBM

## Check downward compatibility

- When planning to run multiple versions of CICS in the same LPAR
  - Ensure that the eight CICS LPA-required modules in the LPA are CICS TS 6.1 (SDFHLPA)
  - LPA-eligible modules are not guaranteed to be downward compatible
    - Use the LPA system initialization parameter LPA=YES/NO as needed
- CICS TS 6.1 modules in SDFHLINK are compatible with earlier releases of CICS
  - The modules for trace and dump formatting are release dependent
  - DFHPDnnn, DFHTGnnn, DFHTRnnn, DFHTTnnn
  - The last three numbers in a release-dependent module name indicate the release
    - 740 - CICS TS 6.1
    - 730 - CICS TS 5.6
    - 720 - CICS TS 5.5
    - 710 - CICS TS 5.4

# Upgrading CICS regions - High-level Overview

- Redefine and initialize the local and global catalogs
- Upgrade the CSD
- Upgrade user-modified CICS-supplied resource definitions
- Upgrade your copies of CICS-supplied resource definitions
- Reassemble all your macro tables
- Reassemble all Global User Exit programs
  - That use XPI calls without the RESENSCALL parameter
- Modify any Global User Exit programs
  - That use XPI INQUIRE\_PROGRAM or GET\_NEXT\_PROGRAM calls with certain equates
- Review DSA size limits
- Review MEMLIMIT

# Upgrading CICS regions

- Redefine and initialize the local and global catalogs
  - For each CICS region, delete, redefine, and initialize the DFHLCD and DFHGCD
  - Delete your existing data sets
  - Define and initialize new local and global catalogs
    - Make sure that you use the [DFHRMUTL](#) and [DFHCCUTL](#) utility programs
      - See DFHDEFDS for sample JCL
  - Start the CICS regions with an initial start
- Upgrade the CSD
  - If sharing the upgraded CSD with different CICS releases
    - The CSD must be at the highest release
    - Compatibility groups must be specified in the correct order
  - To upgrade the CSD, you have two options
    - Upgrade the CICS-supplied definitions in your CSD
      - Run the DFHCSDUP utility program with the [UPGRADE](#) command
    - Define a new CSD by using DFHCSDUP [INITIALIZE](#) command

# Upgrading CICS regions

- Upgrade user-modified CICS-supplied resource definitions
  - If any of the CICS-supplied resource definitions were modified in your current release of CICS TS, upgrade them at the start of upgrading your regions
  - Confirm whether your CSD contains any user-modified, CICS-supplied resource definitions
    - Use the **DFHCSDUP SCAN** command to compare the CICS-supplied resource definitions with any user-modified versions
    - DFHCSDUP reports any differences between the CICS-supplied definition and a user-modified version
- Copy the upgraded CICS-supplied definitions and reapply your modifications
  - The DFHCSDUP UPGRADE command does not operate on your own groups or on CICS groups that you copied
- If the CICS region uses CPSM
  - Manually upgrade any of the dynamically created CPSM resource definitions that were modified
  - The dynamically created resource definitions are in SEYUSAMP



# Upgrading CICS regions

- Upgrade your copies of CICS-supplied resource definitions
  - If you copied any CICS-supplied resource definitions, you might need to change your copies to match the changes that are made to the supplied definitions
  - Member `DFH$CSDU` in SDFHSAMP contains ALTER commands that you can apply using DFHCSDUP
    - ALTER PROGRAM(DFHD2EDF) GROUP(\*) CONCURRENCY(THREADSAFE)
- Reassemble all your macro tables
  - Macro tables must be reassembled
    - CICS detects if a macro table is not reassembled
    - Issues a message `DFHLD0110` or `DFHFC0110` and terminates
- Reassemble all Global User Exit programs that are using XPI calls **without** the RELENSCALL parameter
  - The RELENSCALL parameter on XPI calls means that the XPI call executes successfully on all supported CICS releases
  - Support for the Release sensitive XPI call is stabilized

# Upgrading CICS regions

- Modify any Global User Exit programs that use XPI [INQUIRE\\_PROGRAM](#) or [GET\\_NEXT\\_PROGRAM](#) calls with certain equates
- To support Instruction Execution Protection, the DFHPGISY LOCATION equates changed
  - If your GLUE makes XPI [INQUIRE\\_PROGRAM](#) or [GET\\_NEXT\\_PROGRAM](#) call and uses
    - equates PGIS\_CDSA, PGIS\_SDSA, PGIS\_ECDSA and PGIS\_ESDSA
    - you must modify it to use equates PGIS\_PCDISA, PGIS\_PUDISA, PGIS\_EPCDSA, and PGIS\_EPUDISA
- Review DSA size limits
  - It is not advisable to set the size of individual dynamic storage areas (DSAs)
    - Usually it is not necessary
- Review MEMLIMIT
  - The MEMLIMIT parameter limits the amount of 64-bit storage that the CICS region can use
  - CICS requires a MEMLIMIT value of 10 GB
  - <https://www.ibm.com/docs/en/cics-ts/6.1?topic=storage-estimating-checking-memlimit>

# Upgrading CICS regions (5.4)

- Review program and transaction definitions
  - Defaults of the following resource attributes changed in CICS TS 5.4
    - Program definition
      - DATALOCATION(ANY)
    - Transaction definition
      - SPURGE(YES)
      - TASKDATALOC(ANY)
      - TPURGE(YES)
  - Resources that are already defined are unaffected
    - New definitions will default to the new value
  - Resources that are installed through the EXEC CICS CREATE command will use the new default
  - For program autoinstall, the default model program [DFHPGAPG](#) now specifies DATALOCATION(ANY)
- Review the use of MQCONN
  - The introduction of the [MQMONITOR](#) resource in CICS TS 5.4 enhanced the control and security associated with IBM MQ connections
  - MQINI(DFHMQINI) replaced with MQMONITOR(DFHQMNI)
  - CICS now differentiates between the user ID under which the transaction monitoring the MQ queue runs and the user ID under which the initiated transactions run

# Upgrading CICS regions

- Check DSA storage requirements
  - To allow some programs to run in storage that is not protected from instruction execution
  - New DSAs are used even if instruction execution protection is not used
  - The distribution of storage is changed
    - Some subpools have moved
  - Depending on the attributes of the program CICS loads the program into one of the four new DSAs or into the RDSA or ERDSA
- <https://www.ibm.com/docs/en/cics-ts/6.1?topic=releases-changes-storage>
- CSD compatibility between different CICS releases
  - The CSD can be shared between different CICS releases by using the appropriate [compatibility groups](#)
  - After upgrading a CSD, if you plan to share the CSD with earlier releases of CICS
    - Include the appropriate [DFHCOMPx](#) compatibility groups in the GRPLIST
    - Do not share a CSD with a CICS region that is running at a higher release than the CSD
    - You must install the compatibility groups in the correct order

# Upgrading CICS regions

- Required compatibility groups for earlier releases of CICS

	<b>CICS TS 6.1 CSD</b>	<b>CICS TS 5.6 CSD</b>	<b>CICS TS 5.5 CSD</b>	<b>CICS TS 5.4 CSD</b>	<b>CICS TS 5.3 CSD</b>	<b>CICS TS 5.2 CSD</b>
Shared with CICS TS 6.1	None	Do not share	Do not share	Do not share	Do not share	Do not share
Shared with CICS TS 5.6	DFHCOMPJ	None	Do not share	Do not share	Do not share	Do not share
Shared with CICS TS 5.5	DFHCOMPJ	None	None	Do not share	Do not share	Do not share
Shared with CICS TS 5.4	DFHCOMPJ	None	None	None	Do not share	Do not share
Shared with CICS TS 5.3	DFHCOMPJ DFHCOMPI	DFHCOMPI	DFHCOMPI	DFHCOMPI	None	Do not share
Shared with CICS TS 5.2	DFHCOMPJ DFHCOMPI DFHCOMPH	DFHCOMPI DFHCOMPH	DFHCOMPI DFHCOMPH	DFHCOMPI DFHCOMPH	DFHCOMPH	None

# Upgrading CICSplex SM (CPSM) – High-level Overview

- Check compatibility requirements for different levels of CICSplex SM
- Upgrade maintenance point CMAS
- Upgrade a WUI and the contents of the WUI server repository (EYUWREP)
- Upgrade the CMCI to use the CMCI JVM server
  - If enabled
- Upgrade a non-maintenance point CMAS
- Upgrade a CICSplex SM managed CICS system (MAS)
- Upgrade CICSplex SM API programs
- Rerun EYUJHIST to upgrade your CICSplex SM history data sets

# Upgrading CICSplex SM (CPSM)

- Check compatibility requirements for different levels of CPSM
  - This release of CPSM and earlier releases can run concurrently
  - When service is applied to CPSM
    - PTFs that are applied to the **ESSS** are not intended to be downward-compatible with earlier maintenance levels at the same release
      - All CMASs, MASs, WUIs, and API programs must run at the same maintenance level as the ESSS for their release
- You can run a CMAS at V6.1 that connects to a CMAS running at a supported level of CICS TS
  - A CICS TS V6.1 CMAS runs **only** in a CICS system at V6.1
  - In a CICSplex that consists of CMASs at the latest level and at one or more earlier levels
    - The maintenance point CMAS (MP CMAS) must be at the latest level
  - You cannot view all resources of a CICS TS V6.1 region by using a CMAS that runs at an earlier release
  - To connect a CMAS at a lower level to a CMAS at a higher level
    - PTFs must be applied to each downlevel environment



# Upgrading CICSplex SM (CPSM)

Release of lower level CMAS	5.2	5.3	5.4	5.5	5.6	6.1
5.6	-	-	-	-	-	None
5.5	-	-	-	-	None	None
5.4	-	-	-	None	None	None
5.3	-	-	PI81780	None	None	None
5.2	-	PI52166 PI53801	PI81780	None	None	None
5.1	PI17725 PM98212	PI52166 PI53801	PI81780	None	None	None
4.2	PI17724	PI52165 PI53800	PI81778	None	None	None
4.1	PI17724	PI52165 PI53800	PI81778	None	None	None

# Upgrading CICSplex SM (CPSM)

- For a CMAS and a MAS to communicate
  - They must be running at the same release of CPSM
- For a MP CMAS at the latest release to communicate with a CICS region that runs an earlier release
  - The MP CMAS must be at the latest release
  - Connect the MP CMAS to the back-level MAS through a CMAS that runs the same level as the MAS.
- CICS systems (MASs) running at a supported level of CICS TS can be connected to CPSM V6.1.
- To be connected to CPSM V6.1
  - CICS systems must use the [CPSM V6.1](#) MAS agent
    - The CPSM V6.1 libraries must be in the CICS JCL
- It is advisable to run WUI servers at the latest release

# Upgrading the CICS Explorer

- Check compatibility of CICS Explorer
  - CICS Explorer is backwards compatible
  - To connect to CICS TS 6.1 regions
    - Need CICS Explorer Fix Pack 5.5.22 or later
    - Some features in CICS TS 6.1 are only available in [Fix Pack 5.5.23 and later](#)
- Back up your CICS Explorer workspace
  - The workspace data format might change and backwards compatibility might not be possible
- Upgrade or install a new copy of CICS Explorer
  - For instructions
    - [Downloading and starting CICS Explorer in the CICS Explorer product documentation](#)
    - <https://www.ibm.com/docs/en/cics-explorer/5.5.0?topic=downloading-starting-cics-explorer>

# Start your journey today

## - with CICS TS 6.1

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- [Samples](#)
- [IBM Z Trial](#)
- [Developer trial](#)
- [Upgrade](#)

### Collaborate

- [Community](#)
- [Ideas](#)
- [Design Partnership](#)
- [Open beta](#)

### Related products

- [IBM Z and Cloud Modernization Stack](#)
- [IBM z/OS Connect](#)
- [IBM CICS Performance Analyzer for z/OS](#)
- [IBM Z Security and Compliance Center](#)

