

# CA Chorus™

## Version 3.0 to Version 4.0 Upgrade Guide

Version 04.0.00, Third Edition



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- Online and telephone contact information for technical assistance and customer services
- Information about user communities and forums
- Product and documentation downloads
- CA Support policies and guidelines
- Other helpful resources appropriate for your product

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## CA Technologies Product References

This document references the following CA Technologies products:

- CA ACF2™ for z/OS (CA ACF2)
- CA Datacom®/AD (CA Datacom/AD)
- CA Chorus™
- CA Chorus™ for DB2 Database Management
- CA Chorus™ for Security and Compliance Management
- CA Chorus™ Software Manager
- CA OPS/MVS
- CA SYSVIEW®
- CA Top Secret® for z/OS (CA Top Secret)
- CA Vantage™ Storage Resource Manager (CA Vantage)

## Documentation Changes

The following documentation updates have been made since the second edition of this documentation:

- [Upgrade CA Chorus for DB2 Database Management](#) (see page 17)—Added this topic.

The following documentation updates have been made since the first edition of this documentation:

- [Upgrade from Version 3.0 to Version 4.0](#) (see page 10)—Updated to include the new ETJ3040x security upgrade job.
- [Add the TSF Suffix to the Disciplines](#) (see page 15)—Added this topic.
- [Upgrade CA Chorus for Security and Compliance Management](#) (see page 16)—Added this topic.



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# Chapter 1: Upgrading Your Product

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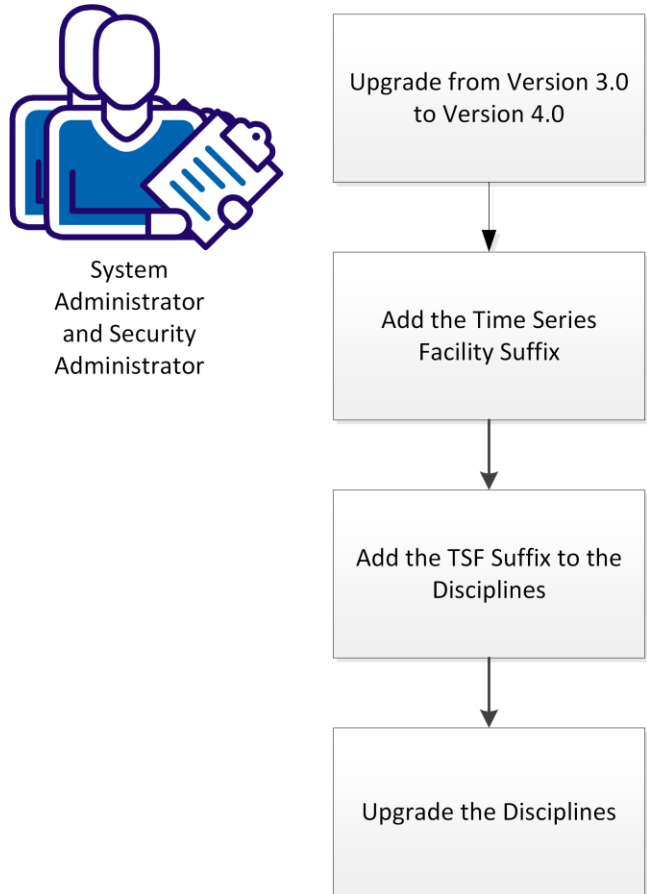
## How to Upgrade from Version 3.0 to Version 4.0

If you plan to run multiple releases concurrently, see step 5 in [Upgrade from Version 3.0 to Version 4.0](#) (see page 10).

This scenario shows how a system administrator and security administrator upgrade CA Chorus from Version 3.0 to Version 4.0 to take advantage of the latest features and functionality.

This illustration shows the upgrade process:

### How to Upgrade CA Chorus from Version 3.0 to Version 4.0



To upgrade your system, complete the following procedures:

1. [Upgrade from Version 3.0 to Version 4.0](#) (see page 10)
2. [Add the Time Series Facility Suffix](#) (see page 14).
3. [Add the TSF Suffix to the Disciplines](#) (see page 15).
4. Upgrade one or more disciplines:
  - [Upgrade CA Chorus for Security and Compliance Management](#) (see page 16)
  - [Upgrade CA Chorus for DB2 Database Management](#) (see page 17)

## Upgrade from Version 3.0 to Version 4.0

To migrate the Version 3.0 system data to Version 4.0, install the releases side-by-side. Use the following procedure to upgrade to Version 4.0.

**Note:** The server startup service migrates the notes that are added in Version 3.0 to Version 4.0.

**Important!** The upgrade process requires you to install the CA Chorus Platform; therefore, secure a copy of the *Site Preparation Guide* and *Installation Guide* before proceeding.

### Follow these steps:

1. Complete the requirements checks and preparation procedures as documented in the *Site Preparation Guide*.
  2. Verify the security configuration:
    - a. Review all security commands and configuration requirements using the preparation worksheets.
    - b. Verify that you have run the applicable security job as documented in the *Site Preparation Guide*:
      - ETJI095x for upgrades where you use a unique CHORADM for the Version 3.0 and Version 4.0 regions.
      - ETJ3040x for upgrades where you use the same CHORADM for the Version 3.0 and Version 4.0 regions.
- Note:** In the ETJI095x job and ETJ3040x job, x equals A for CA ACF2, T for CA Top Secret, or R for IBM RACF. These jobs reside on the [CA Chorus product page](#) under Content Type, Recommended Reading and in the CETJJCL.
3. Install the CA Chorus Platform into a new CSI with a different high-level qualifier and USS path name. For the steps to do so, see the *Installation Guide*.
  4. Deploy the product according to the steps in the *Installation Guide*.

5. Verify that Version 3.0 and Version 4.0 USS file systems are mounted. Use TSO ISHELL or CA SYSVIEW to verify that the directories are mounted in the path where CA Chorus is installed.
6. Complete the Version 4.0 configuration steps in the *Installation Guide*. If you plan to run each version concurrently, use different values for the following components in each version:
  - CA Chorus Application Server port numbers
  - Started task names
  - User ID and group values that are associated with the started tasks.

**Note:** The defaults in both versions are CHORADM and CHORGRP, respectively. During the configuration, these values are specified in the ETJI0095x member in *chorus\_runtime\_hlq.CETJJCL*. ETJI095x is the Version 4.0 security job name, where x indicates the security product (A for CA ACF2, T for CA Top Secret, and R for IBM RACF).

- Time Series Facility (TSF) suffix and port values. For more information, see [Add the Time Series Facility Suffix](#) (see page 14).
7. Migrate (copy) Version 3.0 database files to Version 4.0 by running the FTPH2DB job in *chorus\_40\_runtime\_hlq.CETJJCL* on the systems where Version 4.0 is installed.

**Note:** This job uses FTP so that the copy can be made across systems or on one system.

**Important!** The user that runs this job must have at least read access for the Version 3.0 USS file systems. This user must also have superuser (su) authority for the Version 4.0 USS file systems. Do not run this job with the product active at either release level.

8. (Optional) Migrate (copy) Version 3.0 TSF data to Version 4.0:

**Important!** The migration of the Version 3.0 TSF data to Version 4.0 can take from several hours to a day to complete. The migration time depends on the amount of data that you are migrating. In Version 4.0, all TSF data is eventually purged as it ages. Determine if the benefit of migrating your Version 3.0 TSF data to Version 4.0 is worth the cost in time to do so.

- a. Verify that the CA Chorus Version 4.0 TSF database is empty. The TSF database is at *INSTALL\_HOME/database/ntsf*.
- b. Stop all of the CA Chorus Version 3.0 TSF data feeds for all disciplines. To do so, stop the CA Chorus Version 3.0 CHORTSF region:

```
F chorus_tsf30_region,FSTOP
```

**chorus\_tsf30\_region**

Region name.

- c. Create a migration JCL startup by cloning a copy of the CA Chorus Version 4.0 TSF Bridge JCL startup (CHORTSFB), and assign it a unique name (for example, CHORMIGR).

- d. Add the following CA Datacom/AD MUF libraries in the //STEPLIB concatenation of the CA Chorus TSF Version 3.0 JCL startup to the //STEPLIB concatenation of the migration JCL startup (CHORMIGR):

- @adchlq@.CUSLIB
- @rt\_hlq@.CETJLOAD
- @adthlq@.CAAXLOAD

**@adchlq@**

High-level Qualifier (HLQ) of the Version 3.0 CA Datacom/AD CUS\* datasets.

**Example:** CAI.CHORUS.DATACOM

**@rt\_hlq@**

HLQ of the CA Chorus Version 3.0 runtime datasets.

**Example:** CAI.CHORUS

**@adthlq@**

HLQ of the Version 3.0 CA Datacom/AD runtime datasets. This is the HLQ of the libraries that are currently being used to execute the CA Datacom/AD started tasks.

**Example:** CAI.DATACOM

- e. Start the CA Chorus Version 3.0 CA Datacom/AD MUF started task if it has not been started:

**Example:** S CHORMUF

- f. Start the CA Chorus Version 4.0 TSF Server started task if it has not been started:

**Example:** S CHORNTSF

- g. Start the migration region:

**Example:** S CHORMIGR

- h. Start the migration process:

**Note:** The TSF data migration process can take from several hours to a day to complete. The migration time depends on the amount of TSF data that you are migrating. The TSF data migration process does not support restart. If the migration process is interrupted, the migration utility (MIGRATE) reprocesses all of the existing TSF data.

```
F migration_region_name,MIGRATE
```

**migration\_region\_name**

Region name of the migration JCL startup.

**Example:** CHORMIGR

Upon the successful completion, the migration region automatically shuts down and generates a summary report.

**Example: TSF Database Migration Summary Report**

```
***** TSF DB Migration Report @ 05-AUG-2014 21:08:13 *****
                Start Date/Time: 05-AUG-2014 21:06:46
                End Date/Time: 05-AUG-2014 21:07:30
Total Entity Records Read (G02):                317
Total Metric Records Read (G03):                1194
                (G04):                20856
Total Metrics Converted:                        139040
Total Metrics Forwarded:                       208560
Total Metrics Not Found:                       263
***** End of Report *****
```

- i. Restart the disciplines, as needed.
- j. Start the CA Chorus Version 4.0 TSF Bridge started task, as needed:

**Example:** S CHORTSFB

9. Migrate (copy) Version 3.0 user-uploaded documentation and website indexes to Version 4.0:

**Note:** These jobs use FTP so that a copy can be made across systems or on one system.

**Important!** The user that runs these jobs must have read and write access to Version 3.0 and superuser (su) authority to the Version 4.0 file systems.

- a. Run the FTPDOC1 job in *chorus\_40\_runtime\_hlq.CETJJCL* on the system where Version 3.0 is installed. This job zips the files that require migration.
- b. Run the FTPDOC2 job in *chorus\_40\_runtime\_hlq.CETJJCL* on the system where Version 4.0 is installed. This job performs the following tasks:
  - Creates the target directories.
  - FTPs the zip file from the remote or local system in the previous step and unzips the copied files.

- Reindexes the copied user uploaded documentation. The indexes are created in `INSTALL_HOME/userdoc/mfui/index/user/upload/index`.
- c. (Optional) If non-Latin Unicode web sites have previously been indexed in your Knowledge Center, reindex them following the upgrade to Version 4.0.

**Note:** For the steps to index web sites, see the *Product Guide*.

You have migrated your Version 3.0 system data to Version 4.0.

## Add the Time Series Facility Suffix

A suffix serves as the identifier for each CA Chorus TSF Bridge (CHORTSFB). By design, CHORTSFB and the CA Chorus TSF Relay (CHORTSFR) communicate across two LPARs and require the same SUFFIX. However, within a single LPAR, multiple CHORTSFB or CHORTSFR instances cannot share a TSFSUFFIX. The CA Chorus TSF Version 3.0 region (CHORTSF) also uses a TSFSUFFIX. Therefore, if you are running the CA Chorus Version 3.0 and Version 4.0 environments in parallel, the TSFSUFFIX for each environment must be unique.

As shipped, the TSFSUFFIX is not exposed. The default value is described as PROD and represented as ' ' (blank). The TSFSUFFIX identifier is shown in the TSF Bridge startup log message ETJTS106I.

### Follow these steps:

1. Add the `TSFSUFFIX=c|n` parameter to the `TSFPARMS` member in `chorus_40_runtime_hlq.CETJOPTN`.

This statement specifies a one-character alphabetic (c) or numeric (n) identifier for the TSF region. The valid values are A to Z, or 0 through 9.

2. Add the `TSFSUFFIX=c|n` parameter to the `TSFRPRMS` member in `chorus_40_runtime_hlq.CETJOPTN`. Using a relay is optional.
3. Activate the changes by stopping and restarting the CHORTSFB and CHORTSFR started tasks.

You have added the TSF suffix parameters to Version 4.0.

The CA Chorus Platform upgrade is complete.

## Add the TSF Suffix to the Disciplines

To update the disciplines to add the TSF suffix to feed data to more than one TSF instance, complete the following tasks:

- For CA Chorus for Security and Compliance Management, update the TSFSUFF parameter in CA ACF2 or the CHORUSTSFSX parameter in CA Top Secret to send data to the additional instance.

**Note:** For more information about these parameters, see the *CA ACF2 Administration Guide* or *CA Top Secret Control Options Guide*.

## Upgrade CA Chorus for Security and Compliance Management

To migrate the Release 3.0 system data to Version 4.0, install the releases side-by-side. Use the following procedure to upgrade to Version 4.0.

### Follow these steps:

1. Verify that your site has the latest maintenance for the following CA products.
  - CA Compliance Manager Version 2.0 with all current CA Chorus FIXCAT maintenance for these products. The FIXCAT label is CA.ProductInstall-RequiredService.CA-Mainframe-Chorus.\*, where \* indicates the version of CA Chorus that you are installing.
  - CA LDAP Server r15.1 with all current CA Chorus FIXCAT maintenance for these products. The FIXCAT label is CA.ProductInstall-RequiredService.CA-Mainframe-Chorus.\*, where \* indicates the version of CA Chorus that you are installing.
2. Complete the following CIA tasks:
  - If you plan to use DB2 for your CIA Version 4.0 database, run the following jobs:
    - CIA4DB2 – Deletes the previous CIA application and repository definitions and brings the CIA application entities up-to-date.
    - CIACFILE – Obtains TSFCFILE output for system (CA Top Secret only).
    - CIAUNLD – Executes the unload utility, which reads the security information from the security database and creates an unload data set. The unload data set contains load data in DB2 format which is used to populate the CIA repository.
    - CIA4DBLD – Executes a series of steps to load the security information into the repository in the target DB2 subsystem.
  - If you plan to use CA Datacom/AD for your CIA Version 4.0 database, run the following jobs:
    - CIA4DCOM – Performs the tasks of defining the CIA application and repository to CA Datacom/AD
    - CIACFILE – Obtain TSFCFILE output for system (CA Top Secret only).
    - CIAUNLD – Executes the unload utility, which reads the security information from the security database and creates an unload data set. The unload data set contains load data in DB2 format which is used to populate the CIA repository.
    - CIA4DCLD – Executes the CA Datacom/AD DBUTLTY program to load the security information into the CIA repository tables.

3. You can continue to use your CA Compliance Manager database that was defined for Release 3.0 with Version 4.0. During the configuration process, you must specify the appropriate values in the SECDBCFCG member from your\_chorus\_hlq.CE1MOPTV data set.
4. Complete the Version 4.0 configuration for CA Chorus for Security and Compliance Management.

**Important!** Before execution of the E1MI0010 job in Version 4.0, edit the SECDBCFCG member in your\_chorus\_hlq.CE1MOPTV. This member must contain the definitions of the Compliance Information Analysis (CIA) and each CA Compliance Manager database from Release 3.0 that you want to be connected to in Version 4.0. See the SECDBCFCG member in *your\_chorussec\_v3.0\_hlq.CE1MOPTV* to see the Release 3.0 definitions for your existing CA Compliance Manager databases.

**Note:** If the default values did not change in E1MI0014 (that is, LDAP and CMGR host/port/suffix are still the same), copy the 3.0 config files (acf2\_config.xml, cmgr\_config.xml, tss\_config.xml) into your new 4.0 USS directory. If the values did change, run the E1MI0014 with the updated USS runtime directory and configuration information.

The upgrade is complete.

## Upgrade CA Chorus for DB2 Database Management

Use the following procedure to upgrade CA Chorus for DB2 Database Management from Release 2.5 or 3.0 to 4.0.

When you begin the Version 4.0 upgrade with the CA Chorus platform installation, you have a number of choices to make in the platform security setup job or security upgrade job that affect the following CA Chorus for DB2 Database Management upgrade processing. Specifically, the CA Chorus platform security jobs include the following symbolic values that are also used in the CA Chorus for DB2 Database Management security jobs:

Symbol	Description
&CAI	High-level qualifier for the CA Chorus Version 4.0 data sets.
%CHORADM	z/OS AUTHID for the CA Chorus platform started tasks.
%CHORTHID	z/OS user ID that is used by the CA Chorus platform to "log on" to back-end products.
%CHORWEBS	Security subsystem APPL name that is associated with PassTicket processing.

Choices that you make during the CA Chorus platform upgrade regarding the reuse of the z/OS AUTHID, the z/OS user ID, and the security subsystem APPL name affect the content of the CA Chorus for DB2 Database Management security upgrade job.

**Follow these steps:**

1. Download the CA Chorus for DB2 Database Management Version 4.0 security upgrade job for your security product from the CA Chorus for DB2 Database Management product page on CA Support Online (CSO). Complete the following steps to access:
  - a. Log in to support.ca.com using your registered credentials (email/password).
  - b. Specify CA Chorus for DB2 Database Management in the product drop-down.
  - c. Under Knowledge Center, select Product Pages.  
The security jobs display under Recommended Reading.
  - d. Select one of the following upgrade jobs:
    - For CA ACF2, use E3KU095A.
    - For CA Top Secret, use E3KU095T.
    - For RACF, use E3KU095R.
  - e. Customize and run the security upgrade job. Customization instructions are provided in the job.
2. Complete the CA Chorus Version 4.0 installation and configuration.
3. Replace the Version 4.0 E3KCFG10 member in *your\_chorusdba\_hlq.CE3KPARM* with the contents of your existing Version 2.5 or 3.0 E3KCFG10 member from *your\_previous\_chorusdba\_hlq.CE3KPARM*.
4. Submit member E3KI0010 located in *your\_chorusdba\_hlq.CE3KJCL*. This job copies the E3KCFG10 member from *your\_chorusdba\_hlq.CE3KPARM* into the db2tools.cfg USS file location that the CA Chorus Application server uses.

**Note:** The Time Series Facility data feed has been replaced in CA Chorus for DB2 Database Management Version 4.0. A new feature, the Performance Warehouse, is available for investigating historical DB2 performance data. For more information about setting up the Performance Warehouse, see the *CA Chorus for DB2 Database Management Site Preparation Guide*. If CA Chorus 2.5 or 3.0 will no longer be in use after upgrading to CA Chorus 4.0, disable the CA Chorus for DB2 Database Management Time Series Facility data feed. This task is completed by disabling the CA OPS/MVS TPDT0170 rule on all systems where it is active.

The upgrade is complete.