

# ChangeMan® ZMF 8.2 Patch 6 Readme

February 2022

This Readme file contains information you should know before you install or use ChangeMan ZMF 8.2 Patch 6.

You can download the installer for ChangeMan ZMF 8.2 Patch 6 from the Downloads section of the [Micro Focus Support](#) website. See ["Installation" on page 8](#) for details on installing ChangeMan ZMF 8.2 Patch 6.

## General Information

### Product Description

ChangeMan ZMF is a comprehensive and fully integrated solution for software change, configuration, and release management systems in z/OS® environments. It provides reliable and streamlined implementation of software changes from development through all quality gates and into production. ChangeMan ZMF manages and automates the application life cycle, protects the integrity of the code migration process, and results in higher quality delivered code to each QA/test environment and to the production environment.

### Release Summary

See [New Features in ChangeMan ZMF 8.2 Patch 6 on page 3](#) for a list of the enhancements in ChangeMan ZMF 8.2 Patch 6.

See ["Fixes in ChangeMan ZMF 8.2 Patch 6" on page 4](#) for links to the defects that have been fixed in ChangeMan ZMF 8.2 Patch 6.

### Customer Support

- **Online Support** — The Micro Focus Support website at <https://www.microfocus.com/en-us/support/ChangeMan%20ZMF> provides an easy way for customers to manage their support cases or search the Knowledgebase for the latest technical information about our products at any time.

A user ID and password are required to access some of the resources on the Micro Focus Support website. To obtain a user ID and password, sign up online or contact Customer Support by email or telephone.

- **Downloads** — The Software Licenses and Downloads (SLD) website at <https://sldlogin.microfocus.com/nidp/idff/sso?id=5&sid=2&option=credential&sid=2> is where you can download products and patches for them.

A user ID and password are required to access the Software Licenses and Downloads website. To obtain a user ID and password, sign up online or contact Customer Support by email or telephone.

- **Telephone Support** — Telephone contact numbers for Customer Support are posted by region at the following URL:

<https://support.microfocus.com/contact/serena.html>

No password is needed to access Customer Support contact information.

- **Email Support** — Customers can send support requests by email to [customercare@microfocus.com](mailto:customercare@microfocus.com).
- **Authorized Support Representative** — Some support contracts specify that support calls will be centrally managed within the customer organization. This practice enables related issues to be aggregated across multiple customer sites or functional groups, and it ensures accountability for the satisfactory resolution of open issues. You should determine whether you have such a support contract before contacting Customer Support. If you do have such a contract, submit your support request to the designated support manager within your organization and arrange for that person to contact Customer Support.

## New Features and Fixes

This section:

- Describes the new features and changes in ChangeMan ZMF 8.2 Patch 6.
- Provides a link to the defects that have been fixed in ChangeMan ZMF 8.2 Patch 6.
- Provides links to new features and fixes from earlier releases.

### New Features in ChangeMan ZMF 8.2 Patch 6

#### **Sernet no longer uses cell pools unless it's explicitly configured to do so**

The default value for the CPOOL keyword has changed from YES to NO. Changes in this release largely negate the need to use cell pools. This setting should now only be used under instruction of Micro Focus Support.

#### **Added ability to bypass duplicate bind checking when using the CMNDB2PL - BIND Utility**

The NOCATALOGDUPCHECK keyword directs CMNDB2PL to bypass duplicate bind checking in a run that relies completely on Db2 catalog driven binds (i.e. there are no plan or package bind control members being processed, just DBRMs). The usual process is to eliminate all duplicate binds generated by the Db2 catalog information. If you prefer to post-process this list of duplicate binds, you can use this keyword to direct CMNDB2PL to bypass duplicate bind checking.

#### **Added additional information to the CMN4524I message**

This message was enhanced to include more information about subordinate components and the nature of the failure. This message is now formatted as shown in the following example:

"CMN4524I - Unable to insert relationship entry for DEMO.SRC.PGM001/CPY/DEMO.CPY.CPY001."

#### **Added the ability to use an AWS api-gateway api key when using Rest/Event services**

AWS Subscribers now have the ability to add custom headers to all outgoing HTTP requests. The X-API-KEY header can then be added along with the appropriate value for the subscriber. The subscription process now includes the ability to add 4 custom header name/value pairs to the subscriber definition. Headers are sent to the subscriber in the outbound HTTP request.

#### **Added HLL exit points PUPD00XD (pre-service) and PUPD01XD (post-service) for the package.update.gen\_desc service call.**

As is usual with service exits, only the pre-exit call can change anything. The only attributes that can be changed by this exit are the package description lines themselves.

The pre-exit is passed the proposed update lines of package description and accepts, if asked, updates to that set of lines. It is also passed all the other fixed format package information that is associated with the PUPD functional area, but it can't change any of those fields. The pre-exit can also stop the service from running.

The post-exit is informational only—it is passed the package data along with the description lines which have already been committed to the pmast as a result of this service invocation. It is intended to be used to signal other external processes as required.

### **Added diagnostics for the ERO CMNDB2RQ ERRPRINT routine to help with the resolution of timestamp errors (-180, -181 sql codes)**

The CMNDB2RQ ERRPRINT routine now puts out each timestamp/date/time field in the record which has caused either a -180 or a -181 code error (other SQL codes will not generate these extra messages).

The list differs depending on whether the component-in-motion (CIM) or history (HST) tables are being updated. The impact analysis table (IAT) has no timestamp columns.

### **Added the release name in the BATCH email notification**

The RLSNAME and ARENAME ISPF variables are now included in package notifications.

### **Updated SERCOPY to support the new GENS IEBCOPY keyword**

When the following list of conditions is true IEBCOPY will be invoked with the new GENS=ALL operand of COPYGRP:

- Both input & output dsnames are libraries (PDSEs) of type 2.
- Both input & output dsnames have a non-zero member generation count.
- MBRIGENS is set to Y or \*
- The z/OS level is at least 2.5.

## **Fixes in ChangeMan ZMF 8.2 Patch 6**

Access the following link to display a list of the defects that have been fixed in Sernet and ChangeMan ZMF 8.2 Patch 6:

<https://portal.microfocus.com/s/article/KM000003751>

## New Features and Fixes in ChangeMan ZMF 8.2 Patch 5, Patch 4, ZMF 8.2 Patch 3, ZMF 8.2 Patch 2, ZMF 8.2 Patch 1, ZMF 8.2, and Earlier Releases

### New Features and Fixes in ChangeMan ZMF 8.2 Patch 5

#### New Features

<https://portal.microfocus.com/s/article/KM000003587>

#### Fixes:

<http://knowledgebase.serena.com/InfoCenter/index?page=content&id=S143394>

### New Features and Fixes in ChangeMan ZMF 8.2 Patch 4

#### New Features

<http://knowledgebase.serena.com/InfoCenter/index?page=content&id=S143365>

#### Fixes:

[http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=CMZMF\\_8.2\\_Patch\\_4\\_RESOLUTIONESOLVED&channel=DEFECTS](http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=CMZMF_8.2_Patch_4_RESOLUTIONESOLVED&channel=DEFECTS)

[http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=SERNET\\_8.2\\_Patch\\_4\\_RESOLUTIONESOLVED&channel=DEFECTS](http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=SERNET_8.2_Patch_4_RESOLUTIONESOLVED&channel=DEFECTS)

## New Features and Fixes in ChangeMan ZMF 8.2 Patch 3

### New Features

<http://knowledgebase.serena.com/InfoCenter/index?page=content&id=S143254>

### Fixes:

[http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=CMZMF\\_8.2\\_Patch\\_3\\_RESOLVED&channel=DEFECTS](http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=CMZMF_8.2_Patch_3_RESOLVED&channel=DEFECTS)

[http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=SERNET\\_8.2\\_Patch\\_3\\_RESOLVED&channel=DEFECTS](http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=SERNET_8.2_Patch_3_RESOLVED&channel=DEFECTS)

## New Features and Fixes in ChangeMan ZMF 8.2 Patch 2

### New Features:

<http://knowledgebase.serena.com/InfoCenter/index?page=content&id=S143106>

### Fixes:

[http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=CMZMF\\_8.2\\_Patch\\_2\\_RESOLVED&channel=DEFECTS](http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=CMZMF_8.2_Patch_2_RESOLVED&channel=DEFECTS)

[http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=SERNET\\_8.2\\_Patch\\_2\\_RESOLVED&channel=DEFECTS](http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=SERNET_8.2_Patch_2_RESOLVED&channel=DEFECTS)

## New Features and Fixes in ChangeMan ZMF 8.2 Patch 1

### New Features:

<http://knowledgebase.serena.com/InfoCenter/index?page=content&id=S142997>

### Fixes:

[http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=CMZMF\\_8.2\\_Patch\\_1\\_RESOLVED&channel=DEFECTS](http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=CMZMF_8.2_Patch_1_RESOLVED&channel=DEFECTS)

[http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=SERNET\\_8.2\\_Patch\\_1\\_RESOLVED&channel=DEFECTS](http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=SERNET_8.2_Patch_1_RESOLVED&channel=DEFECTS)

## New Features and Fixes in ChangeMan ZMF 8.2

New Features:

<http://knowledgebase.serena.com/InfoCenter/index?page=content&id=S142996>

Fixes:

[http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=CMZMF\\_8.2\\_RESOLVED&channel=DEFECTS](http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=CMZMF_8.2_RESOLVED&channel=DEFECTS)

[http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=SERNET\\_8.2\\_RESOLVED&channel=DEFECTS](http://knowledgebase.serena.com/InfoCenter/index?page=content&cat=SERNET_8.2_RESOLVED&channel=DEFECTS)

## New Features and Fixes in Earlier ChangeMan ZMF Releases



**NOTE** You can obtain a summary of the enhancements and fixes in the ChangeMan ZMF 8.1.x releases from the ZMF 8.1.4.01 or ZMF 8.1.4 Readme files, which you can access from the following URL:

<https://www.microfocus.com/support-and-services/documentation/>

# Installation

You must install the ChangeMan ZMF products that you have licensed in the following order, as appropriate:

- ZMF Web Services. If you are running customized applications using ZMF Web Services, perform the actions discussed in the section titled [Upgrading to ChangeMan ZMF 8.2 Patch 6 Web Services on page 11](#).
- ZDD and/or ZMF for Eclipse Clients (the ZMF Client Pack).
- ZMF P sites and REST Services upgrade
- ZMF D, DP and ALL sites and REST Services upgrade



**IMPORTANT!** The REST Services upgrade should be done concurrently with the ZMF upgrade. This is important for ZMF 8.2 Patch 4 with the merging of REST and Event Services. In later releases, the REST Services upgrade may be done prior to the ZMF upgrade.

You can download the installer for ChangeMan ZMF 8.2 Patch 6 from the Downloads section of the [Micro Focus Support](#) website.

A customer ID and password are required to access the website. After logging in, follow the prompts to access your software. If you experience any problems while accessing your software, contact us on the most appropriate number from <https://www.microfocus.com/support-and-services/serena/>.

The dialog text of the Installer EXE has also changed extensively to support the REST API feature. We've also replaced the word "FIX" with "All Available PATCHES", and "DELTA" with "Only This Current PATCH" to better reflect the new release naming convention.

The installer will install one of the following versions of ChangeMan ZMF:

- The full ChangeMan ZMF 8.2 Patch 6 product - the first option.
- All available PATCHES since ChangeMan ZMF 8.2 (that is, ChangeMan ZMF 8.2 Patch 1, ChangeMan ZMF 8.2 Patch 2, ChangeMan ZMF 8.2 Patch 3, ChangeMan ZMF 8.2 Patch 4, and ChangeMan ZMF 8.2 Patch 5). (You must have ChangeMan ZMF 8.2 installed to select this option) - the second option.
- Only this current PATCH, ChangeMan ZMF 8.2 Patch 6 (You must have ChangeMan ZMF 8.2 Patch 5 installed to select this option) - the third option.

Follow the instructions in the *ChangeMan ZMF Migration Guide* to upgrade an existing 7.x or 8.x instance of ChangeMan ZMF to version 8.2 Patch 6.

## Upgrade Notes

Refer to the *ChangeMan ZMF Migration Guide* for a list of conversion jobs that you must run to convert master files from the specified ZMF version to ZMF 8.2 Patch 6. All jobs are members of the CMNZMF.V8R2P06.CNTL distribution library. Customize the job's JCL as indicated in the comments within each member before you run it.



## Upgrade Notes for ERO Customers

If you license the Enterprise Release Option (ERO), refer to the instructions in the *ChangeMan ZMF Migration Guide* or *ChangeMan ZMF Installation Guide* for information about the steps you must take to install or upgrade ERO.

## ISPF Panel Changes

All members of the CMNZMF.V8R2P06.PANELS distribution library contain the statements that are highlighted in red below. The exit and copybook that are referenced in these statements are for Micro Focus use only and you should not attempt to change them.

```
***** Top of Data *****
)INEXIT PGM,&EPAPATTR,CACHE
)PANEL KEYLIST(CMNELSK,CMN)
)ATTR
*INCLUDE CMNPATTR                      /* embed common panel attributes */
)BODY EXPAND(!!)
.
.
.
```

## Changes to XML Services

Some XML Services are new or changed in ZMF 8.2 Patch 6. To apply these changes:

- Reload your XMLSPACE LDS by running the XMLLOAD job that is delivered in the SERCOMC.V8R2P05.CNTL distribution library.
- XMLSERV now requires a ZMF/Sernet started task to be running to obtain the list of XML Services.
- If you are currently using XML Services and/or have written programs that use XML Services, contact Customer Support for the XML Services Reference Tables and XML Services Delta Report. The Delta Report identifies the XML Services that have changed since the version of ChangeMan ZMF from which you are migrating. You can use this report to determine if you are using any of the XML Services that have changed and plan this part of your upgrade accordingly.

## Optimization Considerations

We strongly recommend that you use IBM's Batch Local Shared Resource (BLSR) or System-Managed Buffering (SMB) to optimize the VSAM KSDS Package Master, Component Master, and long name Component Master files where delivered JCL shows BLSR sample code. Currently, that includes these ZMF components:

Member	Library	Description
CMN\$\$IAX	CMNZMF.V8R2P06.SKELS	Impact analysis data extract submitted online.
IMPACT	CMNZMF.V8R2P06.CNTL	Impact analysis data extract submitted manually.
STARTJCL	CMNZMF.V8R2P06.CNTL	ZMF portion of the started procedure.

Failure to use the BLSR or SMB performance optimization tool may cause unacceptable performance issues for users and/or processes.

See Solution [S100960](#) in the Knowledgebase for more information.

## Enabling the ZMF Db2 Option

Refer to the instructions in the *ChangeMan ZMF Installation Guide* or *ChangeMan ZMF Migration Guide*, as appropriate, for instructions on enabling the Db2 Option.

The following member of the CMNZMF.CNTL distribution library has changed:

### ■ DB2OPTNR

The changes are described in more detail below. Note that sample job DB2ALTER contains the DDL to apply column changes to pre-existing tables.

### DB2OPTNR



**NOTE** The change described in this section was introduced in ChangeMan ZMF 8.2 Patch 4 but still applies to this release.

The CMNDB2VB package must now be bound at remote site Db2 subsystems – this program now performs access to Db2 catalog tables on behalf of the Bind Service process. This bind has been added:

```

BIND PACKAGE(CMNx) MEMBER(CMNDB2VB) ACT(REP) ISO(CS)          -
  EXPLAIN(NO) VALIDATE(RUN) RELEASE(COMMIT)                   -
  ENCODING(EBCDIC) DBPROTOCOL(DRDA)
```

And the package added to the CMNPLAN pklist:

```

BIND PLAN(CMNPLAN)
PKLIST(CMNx.CMNDB2SQ
        CMNx.CMNDB2VB
        CMNZMF.CMNDB2AT
        *.CMNDB2SQ)
ACT(REP) ISO(CS) RETAIN
EXPLAIN(NO) VALIDATE(BIND) ACQUIRE(USE) RELEASE(COMMIT)
END

```

Customers who are installing ZMF 8.2 Patch 6 from scratch can use sample JCL with these changes already in place.

However, existing customers will have to make sure that they include CMNDB2VB in their remote site binds and include it in the CMNPLAN pklist (if they wish to make use of the new support).

There is a Package Master conversion involved in adding this support; but this processing is included in the standard Package Master conversion task for converting to ZMF 8.2 Patch 6.

For more details about enabling Db2 in ChangeMan ZMF, refer to:

- Solution [S141663](#).
- *ChangeMan ZMF Db2 Option Getting Started Guide*.

## Notes Concerning Recent Db2 Enhancements

CMNDB2VB is required for extended Native SQL stored procedure and Bind Service support. It has a prerequisite of Db2 v11 and requires service versioning to be enabled.

Db2 uses the SYSIBM.DSNSERVICE table to describe REST services and associate them with corresponding packages. This table is used for the new Db2 Bind Service enhancement.

If you bind CMNDB2VB and validate at bind (see the member DB2OPTN in the supplied CMNZMF.CNTL library), and if the SYSIBM.DSNSERVICE table is not present, the bind will fail with a -204 SQLCODE. Note also the GRANT SELECT on table SYSIBM.DSNSERVICE will fail with the same SQLCODE if the table is not present.

Refer to the *ChangeMan ZMF Db2 Option Getting Started Guide* for more information about Bind Service support.

If you do not wish to make use of either extended Native SQL stored procedure support or Bind Service support, you do not need to bind CMNDB2VB. Alternatively, use VALIDATE(RUN) in the BIND command for CMNDB2VB.

## Upgrading to ChangeMan ZMF 8.2 Patch 6 Web Services

If you are running customized ZMF Web Service-based applications, you should rebuild those applications using the ZMF 8.2 Patch 6 Web Services, regardless of the release from which you are upgrading, and redeploy your applications in production prior to or alongside updating your ZMF Server software.

## Building custom applications using web services

The zmfws.war file contains the classes and stubs necessary to build custom applications that use ChangeMan ZMF base web services. It is now a separate download. See Solution [S143025](#) for more information.

## Rerunning the PassTicket Generation Installation Routine

The PassTicket-generation routine was changed in ZMF 8.1.3. If you have not IPLed since SERXPTIK was last updated (March 2017), you will need to run the SERSET routine with a different, unique token value to implement this change if you are upgrading from a ZMF release prior to 8.1.3.

Take these steps:

- 1 Copy the SERSET JCL supplied in the SERCOMC.V8R2P05.CNTL distribution library to a private library, update the STEPLIB (or JOBLIB) as necessary, and change the TOKEN parameter to a value of 'B'.
- 2 Customize this JCL as appropriate, and execute it on all LPARs that are either hosting the Server started task or from which you can connect to the Server started task. It will produce messages similar to the following:

```
00.40.42 J0553644 SER1704I CSVDYLPA loaded SERXPTIK @ 922E9000, Vers 20170320 10.39
00.40.42 J0553644 SER1708I SerNet.PtickB token created
00.40.42 J0553644 SER1708I SerNet.PtickTok token created
00.40.42 J0553644 SER1709I Passticket support enabled
```

The Server started tasks will now point to the new token and will produce messages similar to the following at start up:

```
06.41.36 S0553755 SER1701I Passticket support previously enabled under 'B' suffix
```



**NOTE** This JCL is a one-off task required to update these particular software components in place. Do not change your existing SERSET procedures to point to the new token. When your systems are next IPLed you will automatically revert to token/suffix 'A', which is correct.

## The ChangeMan ZMF REST API Feature

The software for the ZMF REST API Feature is provided as a part of the full install of ChangeMan ZMF 8.2 Patch 6. The installer will ask for the zFS host directory and will populate the zFS host directory with the .war and .jar files. If you do not provide the zFS host directory, the RECEIVE JCL file (RECEIVE.V8R2P05.JCL), will still contain the steps but they will be commented out. The files include:

```
CMNZMF.V8R2P06.ZMFREST.WAR
CMNZMF.V8R2P06.ZMFWS.WAR
CMNZMF.V8R2P06.ZMOBILE.WAR
CMNZMF.V8R2P06.RESTCLIENT.JAR
```

These .war and .jar files are also provided as individual downloads, in a .zip format, as part of the ChangeMan ZMF 8.2 Patch 6 distribution.

The TomCat components for the REST API components are stored in the CMNZMF.V8R2P06.CNTL library. The addition of these 13 components means that library is much larger than earlier versions.

Refer to the *ChangeMan ZMF REST Services Getting Started Guide* for more information about the REST API feature.

## Software Compatibility

For a complete list of software requirements and product compatibility, see the product compatibility matrix spreadsheet on the Software Licenses and Downloads (SLD) website:

<https://sldlogin.microfocus.com/nidp/idff/sso?id=5&sid=2&option=credential&sid=2>.

## Known Issues

- Different versions of ChangeMan ZMF are incompatible in ISPF split screen mode. User abend 44 blocks you from opening a second session with a different version and can also signify incomplete SEREX006 exit information.
- To avoid version conflicts, do not run the XMLSERV prototype tool for XML Services concurrently in ISPF split screen mode with a ChangeMan ZMF instance.
- The routines to stop/start/refresh an IBM® WebSphere® application in promotion, install, and backout consume excessive z/OS memory and elapsed time. Customers report that this behavior is not unique to the ChangeMan ZMF use of the WebSphere API. Customers using the ZMF WebSphere interface should include REGION=0M in jobs that include the CMN\$\$WSB, CMN\$\$WSI, and CMN\$\$WSP skeletons.
- SYNCSORT customers who encounter the following message during SORT processing in the CMVCONxx conversion jobs delivered in the CMNZMF.CNTL distribution library (or any steps involving SORT):

WER175A - INCORE SORT CAPACITY EXCEEDED

can add SORTWORKxx DD statements to steps to explicitly allocate work data sets.

## Documentation Updates

All ChangeMan ZMF documentation is provided in Adobe® Portable Document Format (PDF) and may be downloaded from the Micro Focus SupportLine website at

<https://www.microfocus.com/documentation/changeman-zmf/>.

- Adobe® Reader® is available for free download at <http://get.adobe.com/reader/>. Version 9 or higher is recommended.
- Updates to documentation are frequently issued after the product release date. Updated ChangeMan ZMF Readme files and user manuals are published on the Micro Focus SupportLine website with the rest of the documentation for the product release. Updated Readme files and user manuals are flagged with an **Updated** date in the file name or description.



**NOTE** Change bars in the left margin of ChangeMan ZMF documentation identify substantive changes from the last published version, unless otherwise noted.

- Enhancements that are delivered with ChangeMan ZMF 8.2 Patch 6 are summarized in this Readme file in the section titled [New Features in ChangeMan ZMF 8.2 Patch 6 on page 3](#).

## Searching the Documentation

There is no cross-book index for the ChangeMan ZMF documentation suite. You can use the Advanced Search facility in Adobe Reader to search all ZMF manuals in the same or subordinate folders for information that you want. See topic "Searching the ChangeMan ZMF Documentation Suite" in the "Welcome to..." chapter of each ZMF manual.