

# z/OS 3.2 IBM Education Assistant

Solution Name: zOSMF Incident Log Password Protection

Solution Element(s): zOSMF

July 2025



# Agenda

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- Trademarks
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- Overview
- Usage & Invocation
- Interactions & Dependencies
- Upgrade & Coexistence Considerations
- Installation & Configuration
- Summary
- Appendix

# Trademarks

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- See url <http://www.ibm.com/legal/copytrade.shtml> for a list of trademarks.
- Additional Trademarks:
  - None

# Overview

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- Who (Audience)
  - As a z/OS System Programmer I need to send diagnostic information to IBM or software vendors when incident takes place on z/OS
- What (Solution)
  - z/OSMF Incident Log plugin can be used to send diagnostic data with out revealing any sensitive information in job log
- Wow (Benefit / Value, Need Addressed)
  - z/OSMF Incident Log plugin can be used more confidently to send diagnostic data

# Objectives

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- **Problem Statement / Need Addressed / User Stories:**

Currently, when a z/OS user is sending diagnostic data for dump incident with guided wizard in Incident log plugin, password is displayed in job log because password is part of the JCL built to transfer data to target server. Incident Log user required that credentials not be displayed in job log.

- **Solution:**

An alternative approach is used to prevent password getting displayed in job log.

- **Benefit / Value:**

Help customers to safeguard sensitive information like password while sending diagnostic data.

# Incident Log Enhancements (1)

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## New features

- z/OS users can package and send diagnostic data for dump incident with guided wizard and don't need to worry about password information in job log.
- **Implementation details**
  1. A temporary z/OS UNIX file will be used to store the password required for the diagnostic data transfer in Incident Log.
  2. All the four protocols FTP, SFTP, PDUU\_FTP, PDUU-HTTPS will use temporary z/OS UNIX file to store user id and password such that sensitive information doesn't appear in the job log in the spool.
  3. Temporary z/OS unix file will be deleted on job completion or any failure

# Incident Log Enhancements – FTP and SFTP related updates

## FTP & SFTP Protocol (both with and without profile):

- Removed the sensitive information from the JCL – Input5DD statement

### Old JCL

```
/*
//HFSOUT3 DD PATH='/tmp/bLSLV1DIS25616',
// PATHMODE=SIRWXU,PATHOPTS=(OWRONLY,OCREAT,OTRUNC)
//INPUT3 DD *
'/tmp/90190.999.90.IBMUSER.TRIVENI.TEST1.TRS'
/*
//HFSOUT4 DD PATH='/tmp/fLSLV1DIS25616',
// PATHMODE=SIRWXU,PATHOPTS=(OWRONLY,OCREAT,OTRUNC)
//INPUT4 DD *
'//DD:TRSFILE'
/*
//HFSOUT5 DD PATH='/tmp/gLSLV1DIS25616',
// PATHMODE=SIRWXU,PATHOPTS=(OWRONLY,OCREAT,OTRUNC)
//INPUT5 DD *
ezu147.tuc.stglabs.ibm.com 21
ibmuser
FTP_SERVER_PASSWORD
binary
put +
/*
//HFSOUT6 DD PATH='/tmp/hLSLV1DIS25616'
```

**Sensitive  
information**

### Latest JCL

```
/*
//HFSOUT3 DD PATH='/tmp/bLTWH29LC68680',
// PATHMODE=SIRWXU,PATHOPTS=(OWRONLY,OCREAT,OTRUNC)
//INPUT3 DD *
'/tmp/TS000107553.IBMUSER.TEST.DUMMY.TRS'
/*
//HFSOUT4 DD PATH='/tmp/fLTWH29LC68680',
// PATHMODE=SIRWXU,PATHOPTS=(OWRONLY,OCREAT,OTRUNC)
//INPUT4 DD *
'//DD:TRSFILE'
/*
//HFSOUT6 DD PATH='/tmp/hLTWH29LC68680',
// PATHMODE=SIRWXU,PATHOPTS=(OWRONLY,OCREAT,OTRUNC)
//INPUT6 DD *

quit
/*
```

**Removed Sensitive Information**

# Incident Log Enhancements – FTP and SFTP related updates

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- Created a z/OS UNIX File using Java when user submits the JCL using finish button.
- Passed this z/OS UNIX file to the JCL -

```
//* TRANSFER FILE
//*
//FTP      EXEC PGM=FTP,REGION=50M,
//  PARM=' (EXIT=30'
//SYSPRINT DD  SYSOUT=*
//INPUT    DD  PATH='/tmp/tLTWF9ZJ211515'
//  PATHOPTS=ORDONLY
//TRSFIL   DD  DSN=*.WBEMIN.TRSFIL,
//  DISP=(OLD,PASS)
-----
```

- Delete the temporary file. This file will be deleted no matter whether the job succeeds or fails.

```
//^
//* CLEAN UP
//*
//STEP0100 EXEC PGM=BPXBATCH,REGION=50M,COND=EVEN
//STDPARM  DD  *
PGM /bin/rm -f
/tmp/aLTWF9ZJ211515
/tmp/cLTWF9ZJ211515
/tmp/dLTWF9ZJ211515
/tmp/eLTWF9ZJ211515
/tmp/bLTWF9ZJ211515
/tmp/fLTWF9ZJ211515
/tmp/tLTWF9ZJ211515
/tmp/hLTWF9ZJ211515
/*
```



# Incident Log Enhancements – Job Log

## FTP & SFTP Protocol (both with and without profile):

- **Spool Image:** Sensitive data like Userid & Password is not printing on the spool .

```
COMMAND INPUT ==> _
***** TOP OF DATA *****
okstp03.pok.stglabs.ibm.com 21
ibmuser
test
binary
out +
***** BOTTOM OF DATA *****
```

userid/pw in plain text

Input5 DD statement in spool

```
SDSF JOB DATA SET DISPLAY - JOB PDWFTP (JOB00181) LINE
COMMAND INPUT ==>
PREFIX=** DEST=(ALL) OWNER=** SYSNAME=
NP DDNAME StepName ProcStep DSID Owner C Dest
JESJCLIN 1 IBMUSER H
JESMSG LG JES2 2 IBMUSER H LOCAL
JESJCL JES2 3 IBMUSER H LOCAL
JESYSMSG JES2 4 IBMUSER H LOCAL
$INTTEXT JES2 5 IBMUSER A
EVENTLOG JES2 8 IBMUSER A
SYSUT1 STEP0010 101 IBMUSER H
SYSTSN WBEMIN 102 IBMUSER H
INPUT3 WBEMIN 103 IBMUSER H
INPUT4 WBEMIN 104 IBMUSER H
INPUT6 WBEMIN 105 IBMUSER H
STD PARM STEP0020 106 IBMUSER H
107 IBMUSER H
STD PARM STEP0090 108 IBMUSER H
STD PARM STEP0100 109 IBMUSER H
SYSTSPRT WBEMIN 111 IBMUSER H LOCAL
SYSPRINT STEP0050 114 IBMUSER H LOCAL
SYSPRINT FTP 117 IBMUSER H LOCAL
```

Removed Input5 DD statement

# Incident Log Enhancements (2)

## PDUU – HTTPS & PDUU- FTP Protocol (both profile & non-profile cases)

- Removed the sensitive information from the JCL – SYSIN Statement

### Old JCL

```
//SYSPRINT DD    SYSOUT=*
//SYSIN      DD    *
TARGET_SYS=pkstp01.pok.stglabs.ibm.com 21
USERID=ibmuser
PASSWORD=FTP_SERVER_PASSWORD
TARGET_DSN=IBMUSER.TEST.DUMMY
WORK_DSN=IBMUSER.FTPWK.T00010.S7550.R8179050
WORK_DSN_SIZE=100
CC_FTP=3
DIRECTORY=/tmp/
CASE=TS000107550
/*
```

**Sensitive information**

### New JCL

```
/*
//SYSPRINT DD    SYSOUT=*
//SYSIN      DD    PATH='/tmp/tLW68TU0G55790',
//    PATHOPTS=(ORDONLY),
//    FILEDATA=TEXT
//    DD *
TARGET_SYS=ezu284.tuc.stglabs.ibm.com 21
TARGET_DSN=IBMUSER.INCIDENT.TEST
WORK_DSN=IBMUSER.FTPWK.T12345.S6789.R5877465
WORK_DSN_SIZE=100
CC_FTP=3
DIRECTORY=/tmp/
CASE=TS123456789
/*
```

**Removed sensitive information**

# Incident Log Enhancements – PDUU related updates

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- Created a z/OS UNIX File using Java when user submits the JCL using finish button.
- Passed this z/OS UNIX file to the JCL -

```
/*  
//SYSPRINT DD      SYSOUT=*  
//SYSIN  DD      PATH='/tmp/tLW68TU0G55790',  
//      PATHOPTS=(ORDONLY),  
//      FILEDATA=TEXT  
//      DD *  
TARGET_SYS=ezu284.tuc.stglabs.ibm.com 21  
TARGET_DSN=IBMUER.INCIDENT.TEST  
WORK_DSN=IBMUER.FTPWK.T12345.S6789.R5877465  
WORK_DSN_SIZE=100  
CC_FTP=3  
DIRECTORY=/tmp/  
CASE=TS123456789  
/*
```

- Delete the temporary file. This file will be deleted no matter whether the job succeeds or fails.

```
/*  
/* CLEAN UP  
/*  
//STEP0090 EXEC PGM=BPXBATCH,REGION=50M,COND=EVEN  
//STDPARM DD *  
PGM /bin/rm -f  
/tmp/aLW68TU0G55790  
/tmp/cLW68TU0G55790  
/tmp/dLW68TU0G55790  
/tmp/eLW68TU0G55790  
/tmp/fLW68TU0G55790  
/tmp/tLW68TU0G55790  
/*
```

# Incident Log Enhancements - Job log

- **Spool Image:** Sensitive data like Userid & Password is not printing on the spool .

```
Display Filter View Print Options Search Help
-----
SDSF OUTPUT DISPLAY PDWFTP  J0370908  DSID   106 LINE  NOT PAGE MODE
COMMAND INPUT ==> _          SCROLL =
***** TOP OF DATA *****
TARGET_SYS=pkstp01.pok.stglabs.ibm.com 21
USERID=ibmuser
PASSWORD=test
TARGET_DSN=P05.D240126.SUM.T063002
WORK_DSN=DEBUG59.FTPWK.T12345.S6789.R7021201
WORK_DSN_SIZE=2
CC_FTP=3
DIRECTORY=/tmp/
CASE=TS123456789
***** BOTTOM OF DATA *****
```

**Sensitive information**

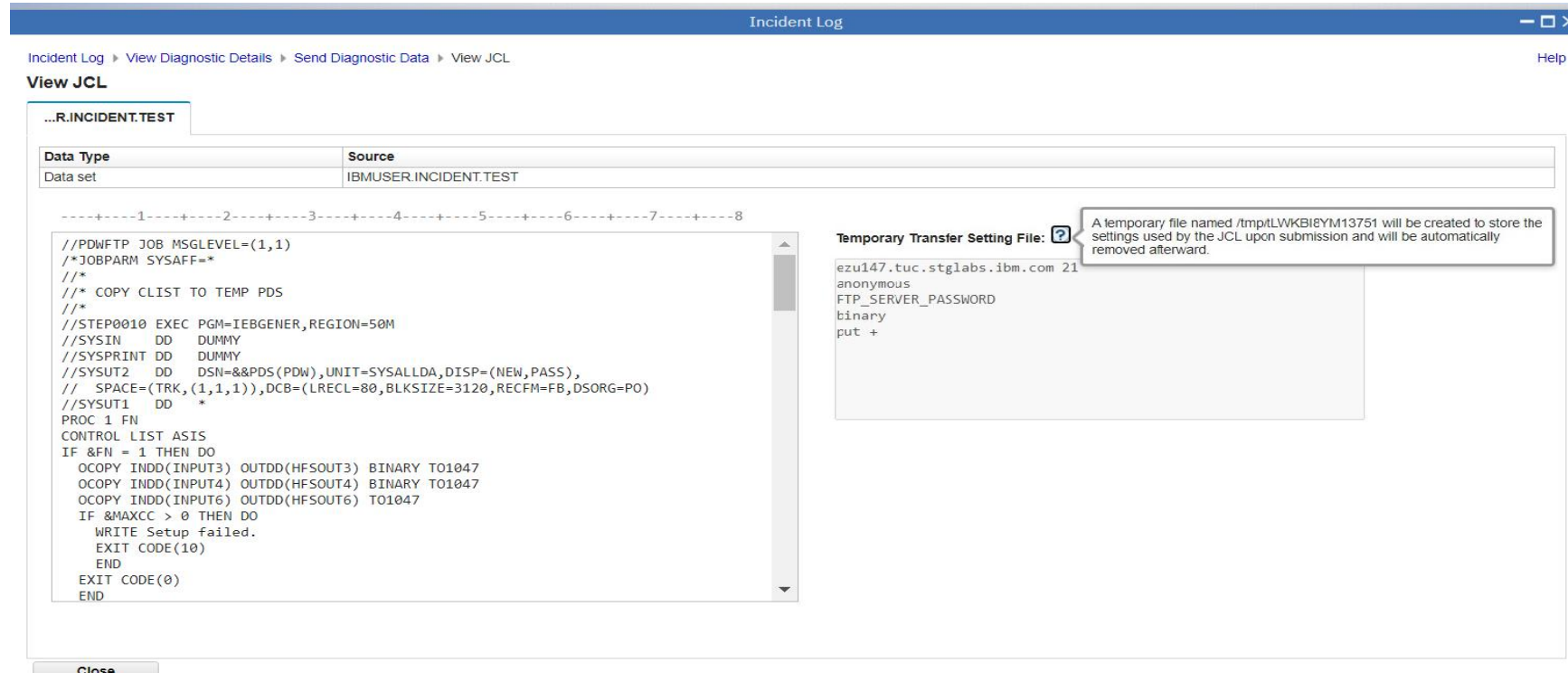
```
Display Filter View Print Options Search Help
-----
SDSF OUTPUT DISPLAY PDWFTP  JOB00088  DSID   113 LINE  0
COMMAND INPUT ==> _
***** TOP OF DATA *****
** AMA735I  SYSIN STATEMENTS:
USERID=IBMUSER
PASSWORD=
TARGET_SYS=ezu284.tuc.stglabs.ibm.com 21
TARGET_DSN=IBMUSER.INCIDENT.TEST
WORK_DSN=IBMUSER.FTPWK.T12345.S6789.R5775427
WORK_DSN_SIZE=5
CC_FTP=3
DIRECTORY=/tmp/
CASE=TS123456789
```

**No sensitive information**

# Incident Log Enhancements – UI changes (1)

## UI changes - View Mode:

- Added "Temporary Transfer Setting File" area to show the contents of a temporary z/OS UNIX file for all the protocols as those contents were removed from the JCL.
- This Temporary Transfer Setting File area will be disabled as user is in view mode
- Hover over the help icon beside the label for more information about the temporary file, it also contains the z/OS UNIX file name which is created using JNI to stores those contents.



# Incident Log Enhancements – UI changes (2)

## Ui Changes- Edit Mode:

- User will be able to edit the contents of Temporary Transfer Setting file area when in edit mode
- Undo Changes will be enabled once when the user updates the temporary file area, using this button user can undo the last save changes.
- If user wants to save changes, he can click on Ok button to save changes and then finish to submit to submit.

The screenshot displays the 'Incident Log' application window in 'Edit JCL' mode. The breadcrumb trail at the top reads: 'Incident Log > View Diagnostic Details > Send Diagnostic Data > Edit JCL'. The main content area is titled 'Edit JCL' and contains a tab labeled 'IBMUSER.TESTLOG'. Below the tab is a table with two columns: 'Data Type' and 'Source'. The 'Data Type' is 'Data set' and the 'Source' is 'IBMUSER.TESTLOG'. The main area contains a JCL code editor with the following text:

```
-----1-----2-----3-----4-----5-----6-----7-----8
//PDWFTP JOB MSGLEVEL=(1,1)
/*JOBPARM SYSAFF=*
/*
/* COPY CLIST TO TEMP PDS
/*
//STEP0010 EXEC PGM=IEBGENER,REGION=50M
//SYSIN DD DUMMY
//SYSPRINT DD DUMMY
//SYSUT2 DD DSN=&&PDS(PDW),UNIT=SYSALLDA,DISP=(NEW,PASS),
// SPACE=(TRK,(1,1,1)),DCB=(LRECL=80,BLKSIZE=3120,RECFM=FB,DSORG=PO)
//SYSUT1 DD *
PROC 1 FN
CONTROL LIST ASIS
IF &FN = 1 THEN DO
  OCOPY INDD(INPUT3) OUTDD(HFSOUT3) BINARY TO1047
  OCOPY INDD(INPUT4) OUTDD(HFSOUT4) BINARY TO1047
  OCOPY INDD(INPUT6) OUTDD(HFSOUT6) TO1047
  IF &MAXCC > 0 THEN DO
    WRITE Setup failed.
    EXIT CODE(10)
  
```

Below the code editor is an 'Undo All Changes' button. To the right of the code editor is a 'Temporary Transfer Setting File' section. It contains a text area with the following text:

```
ezu147.tuc.stglabs.ibm.com 21
anonymous
FTP_SERVER_PASSWORD
binary
put +
```

Below the text area is an 'Undo Changes' button. A tooltip is visible over the 'Temporary Transfer Setting File' section, stating: 'A temporary file named /tmp/tLWkBI8YM13751 will be created to store the settings used by the JCL upon submission and will be automatically removed afterward.'

At the bottom of the window are 'OK' and 'Cancel' buttons.

# Incident Log Enhancements – Coexistence (1)

## Remote z/OSMF - ( Primary z/OSMF 3.1 & Secondary z/OSMF V2R5)

- In this case, old JCL is displayed in both view & edit mode. This old JCL will be submitted when user clicks on Finish button.
- User can edit the sensitive information in the JCL itself & this information will be displayed on the spool upon job submission as it is old JCL.

Incident Log - SYSPLEX.SYSTEM2

Incident Log ▸ View Diagnostic Details ▸ Send Diagnostic Data ▸ Edit JCL

Help

Edit JCL

SVC dump

Data Type	Sysplex	System
SVC dump	LOCAL	SYSTEM1

-----1-----2-----3-----4-----5-----6-----7-----8

```
//PDWFTP JOB MSGLEVEL=(1,1),MSGCLASS=H,NOTIFY=&SYSUID
/*JOBPARM SYSAFF=*
/*
/** COPY CLIST TO TEMP PDS
/*
//STEP0010 EXEC PGM=IEBGENER,REGION=50M
//SYSIN DD DUMMY
//SYSPRINT DD DUMMY
//SYSUT2 DD DSN=&&PDS(PDW),UNIT=SYSALLDA,DISP=(NEW,PASS),
// SPACE=(TRK,(1,1,1)),DCB=(LRECL=80,BLKSIZE=3120,RECFM=FB,DSORG=PO)
//SYSUT1 DD *
PROC 1 FN
CONTROL LIST ASIS NOFLUSH
ERROR DO
  SET RC=&LASTCC
RETURN
END
```

Undo All Changes

OK Cancel

# Incident Log Enhancements – Coexistence (2)

- **Remote z/OSMF - ( Primary z/OSMF V2R5 & Secondary z/OSMF 3.1)**
  - In this case, old JCL is displayed in both view & edit mode. This old JCL will be submitted when user clicks on Finish button.
  - User can edit the sensitive information in the JCL itself & this information will be displayed on the spool upon job submission as it is old JCL.

Incident Log - SYSplex.SYSTEM2

[Incident Log](#) > [View Diagnostic Details](#) > [Send Diagnostic Data](#) > [Edit JCL](#) [Help](#)

**Edit JCL**

SVC dump

Data Type	Sysplex	System
SVC dump	LOCAL	SYSTEM1

-----+-----1-----+-----2-----+-----3-----+-----4-----+-----5-----+-----6-----+-----7-----+-----8-----

```
//PDWFTP JOB MSGLEVEL=(1,1),MSGCLASS=H,NOTIFY=&SYSUID
/*JOBPARM SYSAFF=*
/*
/** COPY CLIST TO TEMP PDS
/*
//STEP0010 EXEC PGM=IEBGENER,REGION=50M
//SYSIN DD DUMMY
//SYSPRINT DD DUMMY
//SYSUT2 DD DSN=&PDS(PDW),UNIT=SYSALLDA,DISP=(NEW,PASS),
// SPACE=(TRK,(1,1,1)),DCB=(LRECL=80,BLKSIZE=3120,RECFM=FB,DSORG=PO)
//SYSUT1 DD *
PROC 1 FN
CONTROL LIST ASIS NOFLUSH
ERROR DO
SET RC=&LASTCC
RETURN
END
```

Undo All Changes

OKCancel



# Interactions & Dependencies

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- Software Dependencies
  - No dependencies.
- Hardware Dependencies
  - None
- Exploiters
  - None

# Upgrade & Coexistence Considerations

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- To exploit this solution, all systems in the Plex must be at the new z/OS level: **No**
  - In a multi-sysplex environment, system where z/OSMF is running must be at the new z/OS level or have PTF for APAR PH60035 to exploit this solution.
- List any toleration/coexistence APARs/PTFs. **N/A**
- List anything that doesn't work the same anymore. **N/A**

# Installation & Configuration

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- zOSMF needs to be installed and configured
- Incident Log plugin needs to be enabled

# Summary

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- Sensitive information such as password won't be included in the spool files associated with the jobs submitted to transfer Incident diagnostic data

# Appendix

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- Publications
  - zOSMF Configuration Guide
  - zOSMF Programming Guide
  - Online help within zOSMF