z/OS 3.2 IBM Education Assistant

Solution Name: zOSMF Incident Log Password Protection

Solution Element(s): zOSMF

July 2025

Agenda

- Trademarks

- Objectives

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- Usage & Invocation

- Interactions & Dependencies

- Upgrade & Coexistence Considerations

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Trademarks

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

Overview

- ## 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

- **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)

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/bLSLV1DIS25616'
```

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

- 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
//TRSFILE  DD    DSN=*.WBEMIN.TRSFILE,
//  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):

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- **Spool Image:** Sensitive data like Userid & Password is not printing

on the spool .

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

- 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=IBMUSER.INCIDENT.TEST
WORK_DSN=IBMUSER.FTPWK.T12345.S6789.R5877465
WORK_DSN_SIZE=100
CC_FTP=3
DIRECTORY=/tmp/
CASE=TS123456789
/*
```
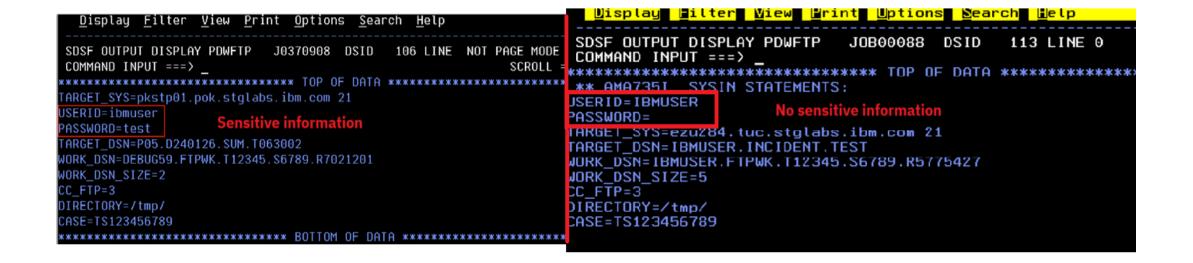
- Delete the temporary file. This file will be deleted no matter whether the job succeeds or fails.

```
//*
//* 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
/*
```
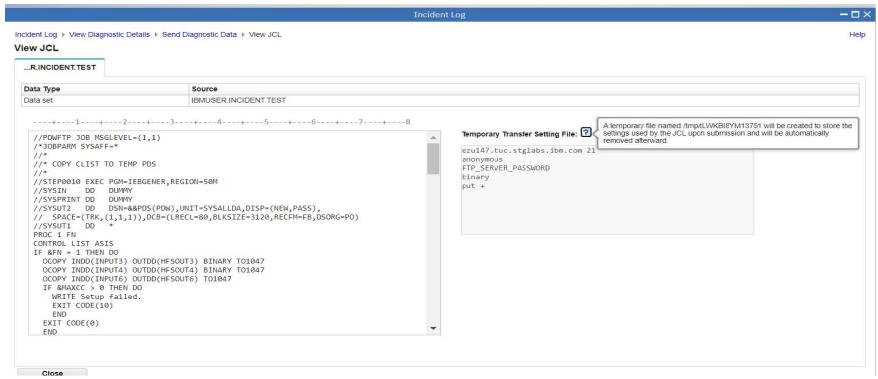
Incident Log Enhancements - Job log

- **Spool Image:** Sensitive data like Userid & Password is not printing

on the spool .

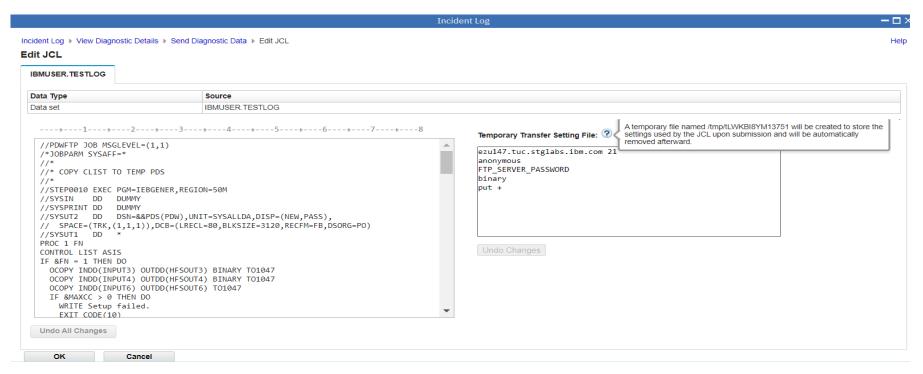# Incident Log Enhancements – UI changes (1)

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.

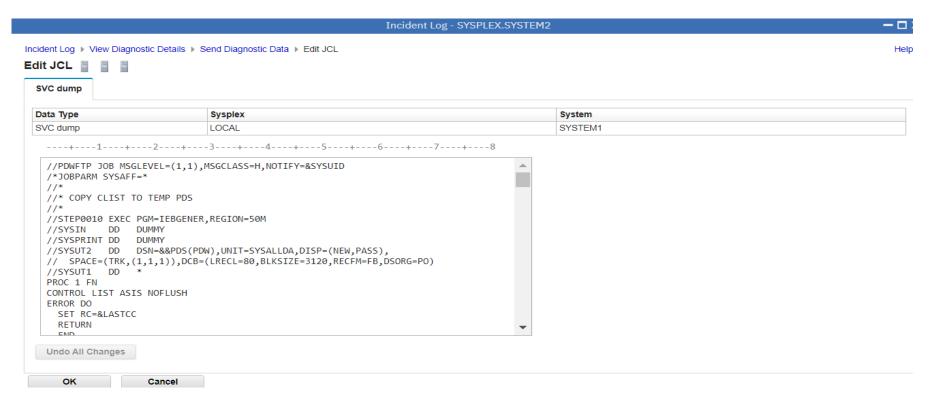# Incident Log Enhancements – UI changes (2)

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.
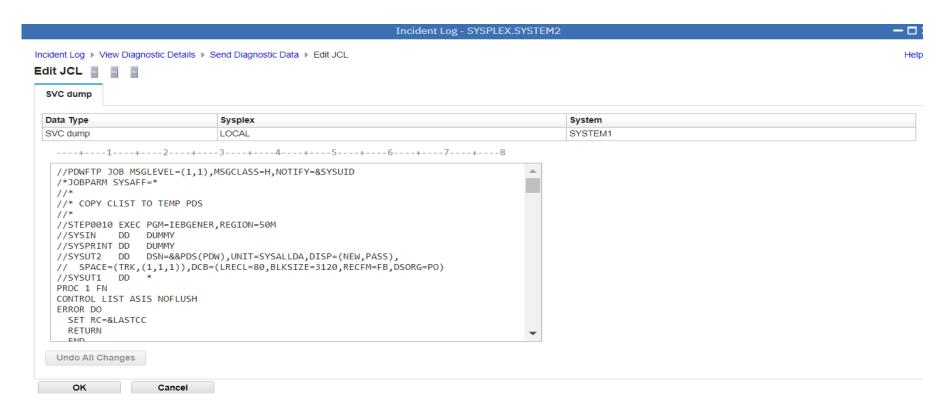
Incident Log Enhancements – Coexistence (1)

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 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.

Interactions & Dependencies

- Software Dependencies
  - No dependencies.

- Hardware Dependencies
  - None

- Exploiters
  - None

Upgrade & Coexistence Considerations

- 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

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

Summary

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

Appendix

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