

z/OS 3.1 IBM Education Assistant

Solution Name: zACS z/OSMF GUI Support

Solution Element(s): IBM z/OS Authorized Code Scanner

July 2023



Agenda

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

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

Objectives

- Provide user interface for IBM z/OS Authorized Code Scanner (zACS) through the z/OSMF external plugin.
- Invoke zACS and display scan results in an easily consumable format.

Overview

- Who (Audience)
 - Customers looking to scan authorized programs using IBM zACS to check for any vulnerabilities.
- What (Solution)
 - A new z/OSMF external plugin that can be used to perform the zACS functions.
- Wow (Benefit / Value, Need Addressed)
 - Performs zACS functions easily through a browser-based user interface.

Usage & Invocation

- Setup z/OSMF and zACS plugin
- Setup and start zACS
- Access the zACS UI through z/OSMF
- View Tables

z/OS Authorized Code ScannerView TableView Test ResultFred the Security Architect

View Generated Service Tables

If a PC, SVC, MVS Program and USS Program routine is implemented incorrectly, a security vulnerability may be introduced that compromises the system integrity of z/OS. zACS provides the ability to test PCs, SVCs, MVS Programs and USS Programs to address this.

Help

PCsSVCsUSS ProgramsMVS Programs

Search input text

Manage Filter ListRefresh PCs

	PC Number	Sequence Number	Module Name	Module Address	PC Offset	Job Name	Eyectacher
▼	00180600	00000000	IECVEXCP	093077A8	00000630	MUSE1	.ISGGELF ...
▼	00180601	00000000	IEAVEWAT	0738B000	0003C5A8	MUSE1	.ISGGELF ...
▼	00180602	00000000	IEAVEPST	093077A8	0003C5A8	MUSE2	x4...IEFH ...
▼	00180603	00000000	IGCOO3	093077A8	0003C5A8	MUSE2	.{ã0{.IEF ...
▼	00180604	00000000	ISGNLPA	09300000	00000630	MUSE3	x4...IEFH ...
▼	00180605	00000000	ISGNPVT	0738B000	00000630	MUSE3	.ISGGELF ...
▼	00180606	00000000	IEFHB410	0738B000	00000630	MUSE1	.ISGLECA ...
▼	00180607	00000000	IEFHB420	0738B000	0003C5A8	MUSE2	.ISGGELF ...
▼	00180608	00000000	IECVEXCT	0738B000	0003C5A8	MUSE1	x4...IEFH ...
▼	00180609	00000000	IEAVEPSS	093077A8	00000000	MUSE2	x4...IEFH ...

Items per page: 10

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1 of 10 pages

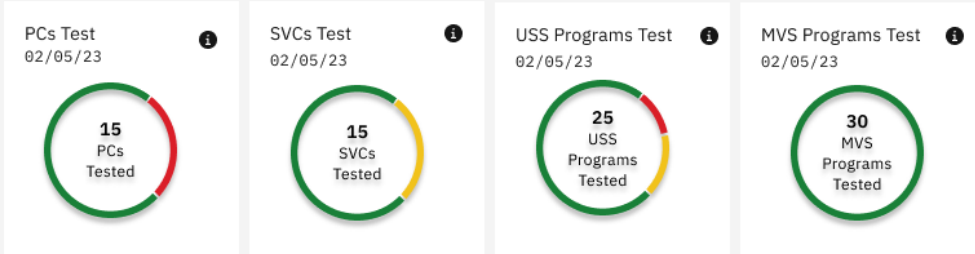
Usage & Invocation – Part 2

- The View Test Result page allows user to Run Test and see the results
- The user can filter the test result table.

Test PCS, SVCs, MVS Programs and USS Programs

[Help](#)

If a PC, SVC, MVS Program and USS Program routine is implemented incorrectly, a security vulnerability may be introduced that compromises the system integrity of z/OS. zACS provides the ability to test PCs, SVCs, MVS Programs and USS Programs to address this.



Run Test

Test every PC, SVC, MVS Program and USS Program to see if there are unauthorized callers from being incorrectly granted an authorized state by detecting vulnerabilities.

Run Test

Test Result for PCs	Test Results for SVCs	Test Results for USS Programs	Test Results for MVS Programs	Start Time	End Time			
<div><div><div></div></div><div>Search input text</div></div>				<div><div>mm/dd/yyyy</div><div></div></div>	<div><div>mm/dd/yyyy</div><div></div></div>	<div>Refresh Filter</div> <div></div>		
Number	Module Name	Job Name	Time Stamp	Last Test Result	CVSS Score			
00180601	IEAWEAT	MUSE1	11/16/22 01:30	Potential Vulnerability*	8.8			
00180605	ISGNPVT	MUSE3	11/16/22 11:30	Potential Vulnerability*	6.5			
00180606	IEFHB410	MUSE1	11/16/22 19:40	Pass				
00180608	IECVEXCT	MUSE1	11/16/22 14:10	Pass*				
00180608	IEAVEPSS	MUSE2	11/16/22 03:10	Pass				
Items per page: 5	1 – 5 of 5 items				1 of 5 pages			

Usage & Invocation – Part 3

- Run Test function provides four options.

z/OS Authorized Code ScannerView TableView Test ResultFred the Security Architect

Test PCS, SVCs, USS Programs and MVS Programs

If a PC, SVC, USS Program and MVS Program routine is implemented incorrectly, a security vulnerability may be introduced that compromises the system integrity of z/OS. zACS provides the ability to test PCs, SVCs, USS Programs and MVS Programs to address this.

PCs Test02/05/2315 PCs Tested

SVCs Test02/05/2315 SVCs Tested

USS Programs Test

MVS Programs Test

Run Test

Test Result for PCsTest Results for SVCs

Search

Number	Module Name	Tested By	Tested At	Result	Score
00180601	IEAWEAT	MUSE1	11/16/22 01:30	Potential vulnerability	8.8
00180605	ISGNPVT	MUSE3	11/16/22 11:30	Potential Vulnerability*	6.5
00180606	IEFHB410	MUSE1	11/16/22 19:40	Pass	
00180608	IECVEXCT	MUSE1	11/16/22 14:10	Pass*	
00180608	IEAVEPSS	MUSE2	11/16/22 03:10	Pass	

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Run Test

Test every PC, SVC, MVS Program and USS Program to see if there are unauthorized callers from being incorrectly granted an authorized state by detecting vulnerabilities.

Please select a test you would like to run

Run PC Test

Run SVC Test

Run MVS Program Test

Run USS Program Test

Cancel

Next

Interactions & Dependencies

- Software Dependencies
 - z/OSMF
 - zACS
- 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

Installation & Configuration

- Install and configure z/OSMF (follow IBM z/OSMFConfiguration Guide)
- Upload the zacs.properties to the /usr/lpp/zacsui
- Upload and extract zACSUI zip to the z/OSMF directory /usr/lpp/zacsui/dist/
- Authorize users to the task
 - RDEFINE ZMFAPLA IZUDFLT. ZOSMF.IBM_ZACSUI.APPTSO.ZACSVIEWER UACC(NONE)
 - PERMIT IZUDFLT. ZOSMF.IBM_ZACSUI.APPTSO.ZACSVIEWER CLASS(ZMFAPLA) ID(IZUADMIN) ACCESS(CONTROL)
 - PERMIT IZUDFLT. ZOSMF.IBM_ZACSUI.APPTSO.ZACSVIEWER CLASS(ZMFAPLA) ID(IZUUSER) ACCESS(READ)
 - SETROPTS RACLIST(ZMFAPLA) REFRESH
- Access Import Manager task in the z/OSMF Administration category and import the property file by browsing to /usr/lpp/zacsui/zacs.properties

Summary

- New z/OSMF plugin for performing zACS functions
- Scan and view reports with graphs are presented from zACS datasets

Appendix

- Publication
 - IBM z/OS Authorized Code Scanner Guide