



#12264

All Security All The Time: System z Security Update for CA ACF2, IBM RACF, CA Top Secret

February 4, 2013 ~ 3:00pm

Mark Hahn





Visit www.SHARE-SEC.com for more information on the SHARE Security & Compliance Project

Carla A. Flores







Session Evaluations

• QR codes



- Online for up to 72 hours after the session
 - www.SHARE.org/SFEval



Complete your sessions evaluation online at SHARE.org/SFEval



Agenda

- IBM RACF Update
- CA ACF2[™] for z/OS Update
- CA Top Secret® for z/OS Update
- Open Discussion/Questions







IBM RACF update



Trademarks



The following are trademarks of the International Business Machines Corporation in the United States and/or other countries.

Trademarks

•CICS®

•DB2®

•Language Environment®

•OS/390®

The following are trademarks or registered trademarks of other companies.

- * Registered trademarks of IBM Corporation
- * All other products may be trademarks or registered trademarks of their respective companies.

Java and all Java-related trademarks and logos are trademarks of Sun Microsystems, Inc., in the United States and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows and Windows NT are registered trademarks of Microsoft Corporation.

UNIX is a registered trademark of The Open Group in the United States and other countries.

SET and Secure Electronic Transaction are trademarks owned by SET Secure Electronic Transaction LLC.

Notes:

- Performance is in Internal Throughput Rate (ITR) ratio based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput that any user will experience will vary depending upon
- considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput

improvements equivalent to the performance ratios stated here.

IBM hardware products are manufactured from new parts, or new and serviceable used parts. Regardless, our warranty terms apply.

All customer examples cited or described in this presentation are presented as illustrations of the manner in which some customers have used IBM products and the results they may have achieved. Actual environmental costs and performance

characteristics will vary depending on individual customer configurations and conditions.

This publication was produced in the United States. IBM may not offer the products, services or features discussed in this document in other countries, and the information may be subject to change without notice. Consult your local IBM business

contact for information on the product or services available in your area.

- All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only.
- Information about non-IBM products is obtained from the manufacturers of those products or their published announcements. IBM has not tested those products and cannot confirm the performance, compatibility, or any other claims related to non-
- IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

Prices subject to change without notice. Contact your IBM representative or Business Partner for the most current pricing in your geography.



Complete your sessions evaluation online at SHARE.org/SFEval



RACF 1.13

- Current RACF 1.13
- z/OS on 2-year cycle
- Are you making use of the valuable features?



RACF 1.13 RRSF via TCP/IP



With z/OS V1.13, you can link RRSF nodes using TCP/IP instead of APPC! This means that you can now:

- Manage your RRSF network using the same skills as the rest of your TCP/IP network.
- Ensure that the same network security policy (IDS, IPS, etc.) is in place for your RRSF network as in place for the rest of your z/OS TCP/IP network.
- Utilize the encryption and peer-node authentication of AT-TLS
- Keep up with improvements in z/OS Communications Server Security.
- Convert a node from using APPC to TCP/IP without stopping communication



RACF 1.13 Identity Propagation



Propagate userid between applications

- Now you can achieve end-to-end security identity consistency and auditing for key system environments such as:
 - CICS
 - DB2
 - WebSphere
 - DataPower
- This provides consistent end-to-end auditing of z/OS transactions that originate from the internet by maintaining the user's distributed identity information, without impacting the performance characteristics of transaction providers.



RACF 1.13 Digital Certificates



RACF support for hardware-generated Elliptic Curve Cryptography (ECC) secure keys,

- Provides the ability to issue and use certificates with hardware protection
- ECC keys added
- RACDCERT support enhanced for greater usability



RACF 1.13 PKI Services



Support of DB2 for PKI Services Databases

- Both PKI Services databases can be stored in DB2
- Object store holds records to track active certificate requests and posting objects for certificates and CRLs
- Issued Certificate List permanent record for each certificate issued



RACF 1.13 Certificate Revocation Lists



Larger Certificate Revocation Lists (CRLs)

 When LDAP posting is enabled, 32K limit is removed by storing the CRLs in the HFS or zFS instead of in VSAM

Enhanced support for Web Browsers

- Previously, PKI Services only supported IE to use a smart card for the Windows Logon certificate generation
- Now Mozilla-based browsers on both the Windows and Linux platforms can use a smart card to generate certificates



RACF 1.13 BPX.UNIQUE.USER



What are You Doing About BPX.UNIQUE.USER?

- Many of us use a FACILITY class rule named BPX.DEFAULT.USER which provides a default USS identity (UID and GID) for RACF userids that don't have an OMVS segment. This makes it easier for us when we suddenly have to let hundreds of users who don't have OMVS segments access FTP for example.
- IBM plans to stop supporting BPX.DEFAULT.USER after RACF Release 1.13.



RACF 1.13 Summary



What was new with z/OS V1.13 RACF?

- RACF Remote Sharing (RRSF) over TCP/IP
- Identity Propagation extensions
- RACF Support for Elliptic Curve Cryptography (ECC)
- What was new with z/OS V1.13 PKI Services?
- Support of DB2 for PKI Services Databases
- Larger Certificate Revocation Lists (CRLs)
- Enhanced support for Web Browsers
- Remember: BPX.DEFAULT.USER



RACF 2.1 Heads Up



General RACF 2.1

No specifics as yet – watch for preannounce at SHARE this week



Complete your sessions evaluation online at SHARE.org/SFEval







Disclaimer



Certain information in this presentation (slides 17-24) may outline CA's general product direction. This presentation shall not serve to (i) affect the rights and/or obligations of CA or its licensees under any existing or future license agreement or services agreement relating to any CA software product; or (ii) amend any product documentation or specifications for any CA software product. This presentation is based on current information and resource allocations as of February 4, 2013 and **is subject to change or withdrawal by CA at any time without notice**. The development, release and timing of any features or functionality described in this presentation remain at CA's sole discretion.

Notwithstanding anything in this presentation to the contrary, upon the general availability of any future CA product release referenced in this presentation, CA may make such release available to new licensees in the form of a regularly scheduled major product release. Such release may be made available to licensees of the product who are active subscribers to CA maintenance and support, on a when and if-available basis. The information in this presentation is not deemed to be incorporated into any contract.

Copyright © 2013 CA. All rights reserved. All trademarks, trade names, service marks and logos referenced herein belong to their respective companies. DB2, IMS, CICS, z/VM and z/OS are trademarks of International Business Machines Corporation in the United States, other countries, or both.

*CA does not provide legal advice. Neither this document nor any CA software product referenced herein shall serve as a substitute for your compliance with any laws (including but not limited to any act, statute, regulation, rule, directive, policy, standard, guideline, measure, requirement, administrative order, executive order, etc. (collectively, "Laws")) referenced in this document. You should consult with competent legal counsel regarding any Laws referenced herein.

THIS PRESENTATION IS FOR YOUR INFORMATIONAL PURPOSES ONLY. CA assumes no responsibility for the accuracy or completeness of the information. TO THE EXTENT PERMITTED BY APPLICABLE LAW, CA PROVIDES THIS DOCUMENT "AS IS" WITHOUT WARRANTY OF ANY KIND, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. In no event will CA be liable for any loss or damage, direct or indirect, in connection with this presentation, including, without limitation, lost profits, lost investment, business interruption, goodwill, or lost data, even if CA is expressly advised in advance of the possibility of such damages.





Role Based Security

- Enhanced Model/Archive/Compare commands to include users defined roles
- Clean-up Role records when a user account is deleted
- Incorporate Roles in ACF ACCESS command
- Prevention of changing Role record type

Cross-Reference record expansion

• X(ROL), X(RGP) and X(SGP) from 4K to 16k

Digital Certificates

- Movement of internal certificate table to 64-bit storage
- Unsupported Signature Algorithm checking
- EDAYS(nn) parameter in Certificate Utility reports





Symbolic substitution in Dataset Rules

- Reduces rule administration by allowing &LID as substitution string
- The &LID is used on the rule line within the dataset rule set

GSO LINKLIST enhancements

- System Symbolic substitution allowed as defined in SYS1.PARMLIB (IEASYM)
- Masking capabilities now permitted for Datasets

GSO INFODIR expanded

Limitation of 256 entries doubled to 512

Optional use of Cancelled LID for RACROUTE EXTRACTS

- Equivalent support for all ESM's
- Prevents Processes from not working





ACFVSAM Reserve Enqueue Name

- Allows the minor name for ACFVSAM ENQ/RESERVE name to be associated with dataset name instead of ddname
- Better granularity for users with multiple security files in same Sysplex
- Reduces contention on ACF2 VSAM usage
- Logonid exclusion from Password/Passphrase Violations
 - Password violation counters will not be incremented for defined userids
 - Prevents application outages due to violations
 - Controlled through new resource class and resource rules

Unique UID and GID values

• Ensures each user is accountable using a unique value





IMS Enhancements

- Security for the IMS DBCTL Environment
 - Secures IMS TM (transaction/terminal management) environments
 - Used when data in IMS DB databases access is needed
 - Allows sharing of IMS DB data ensuring data integrity
- Implementation of '/ACF' command
 - Allows execution of '/ACF' command in IMS OM environment
- Removal of ACF2 IMS Dependence of IMS Security Macro
 - IBM is eliminating the SECURITY macro







CA Top Secret® for z/OS r15 Incremental Enhancements (CY2013)



CA Top Secret® for z/OS r15 - Incremental Enhancements (CY2013)



- Reduce Storage Obtains required
- Increase MAX ACID size to 1024K
 - Allows for larger ownership records, which in turn allows for more permissions to be issued for any given resource.
- TSSUTIL updates support specific resources and dates
 - Enable TSSUTIL to report on a specific resource via RESOURCE('resourceName') selection criteria option.
 - Enable continuation characters to allow multi-line report commands, keywords and their parameter lists (i.e. FACILITY)



CA Top Secret® for z/OS r15 - Incremental Enhancements (CY2013)



- ENHANCE TO RPW OPTION (SSPARAM, TSSNPW, TSSRPW)
 - New control option to allow whether or not to restrict passwords by a prefix or a string in any position in the password
- Expand COMPARE Command
- WHOHAS command output corrections



CA Top Secret® for z/OS r15 - Incremental Enhancements (CY2013)



Control MODIFY with CASECAUT

 This feature will allow more granular authority checking for the TSS MODIFY command

• Tracking FACILITY and IBMGROUP usage

CA Cleanup: track the use of both FACILITY and IBMGROUP

Digital Certificates

- Movement of internal certificate table to 64-bit storage
- Unsupported Signature Algorithm checking
- EDAYS(nn) parameter in Certificate Utility reports







CA Mainframe Chorus

Security and Compliance Role Improvements in 2.5



CA Mainframe Chorus Architecture







Complete your sessions evaluation online at SHARE.org/SFEval

26

CA Mainframe Chorus an overview...





2013

in San Francisco

Improve staff efficiency CA Chorus vision



Object-oriented workspace, with a new discipline-based interaction model that incorporates rich features and data visualization and leverages CA Technologies portfolio of products as a single bank of features and functions



•••• in San Francisco 2013

CA Mainframe Chorus ~ Security Workspace

DE29 IO STATS X					× DE					X DE30 RACR			ROUTE				7					
•	10 5		WW	10 5	stat -	IO Stat	IO Sta		CROUT	RACROUT	RACR	001	RACROU	T RA	CROUT	RACRO			RACROUT	*	+	•
tech	Mainframe Chorus Coltr05 (Log Out) [2] Turn Off Metrics Panel Y Preferences 3 Help Getting Started Security DB2 Performance DB2 Admin Storage SYS Perf Workload +																					
DE2	E29 Racroute : RACROUTE 🛛 😨 — 🗙 DE29 SECCACHE : SECCACHE 😨 — 🗙							Alert	5							0	۹ –	×				
100					Action	s	ov			Ac	tions	Dele	te 🛛 💦	New A	lerts	All		Enter	Search Ke	yword.	P	
90.91 81.82 72.73 63.64						7.2	27K 55K 32K 99K						s	Tin 20:	ne 🗘	1D ‡	E 🗘	M	S	U.	🗘	-
45.45			1			3.0 2: 2: 1.4 727	54K 91K 18K 45K .27					•	6	20	10-11-:	115	Logout	User us	er(ca31	us	er01	
, o	13: 13 20 30	: 13: 13:) 40 50	14: 14: 00 10	: 14: 20	14: 14: 30 40		0 13: 13: 20 30	13: 13: 40 50	: 14: 1 0 00 1	4: 14: 14: 10 20 30	14: 40		5 3	20	10-11-; 10-11-;	120 102	Logout Access	User us	er: ca31 er! ca11	us	er13	E
	_	_	_	_	_	_//,		_	_	6		•	4	20	10-11-:	112	Access	User us	er call	us	er07	
Note	25	_					_					•	4	20	10-11-:	117	Access	User us	er: call	us	er12	
										9	R ^a	•	3	20	10-11-2	101	Logon	User us	er call	us	er01	
Pub	lic Not	es Priva	te Notes				-	÷						20	10-11-:	104	Logon	User us	er ca31	us	ser04	+ }
1D 5	Ŧ	If this us	er does s	ometh	Author lufda02	Ŧ	07/08/20	- C	User YEC	MI01 on XE	51	14	4	Page	1 0	f2 🕨	ÞI	2	Displayi	ng 1 -	10 of 1	5
4		This syst	em is use	d for s	lufda02		07/08/20	11:17: 9	System (CA11		Inve	stigator								0 -	×
3		asdf asdi	asdfasdf	asdf 2	lufda02		07/08/20	11:17: 9	System 3	XE42		Dubl		Daire					Start New	Inves	tigatio	n
												СОМ	PLETE	Priva		s TED	⇒ PA	TH NAME				
												true		Ť	Fri Jul	08 12:55	:30 GN Ch	ecking out	new users	;		
												14	4	Page	1 o	f1 🕨	Þi	2	Disp	olaying	1 - 1 o	f 1
Complete your sessions evaluation online at SHARE.org/SFEval														•••	• in Sa	n Fra	nciso	CO				

2013

Design goals and architecture



- Enable the converging workforce
- Provide shortened on ramp for less experienced users
- Increase productivity for experienced users

		16.			N Pue			
ACF2 and	Top Secret	Knowledge Ce _i	Investigator	M _{etrics} P _{anel}	Security Comm	Quick Links	Not _{es}	Security Alerts
	CIA database	х	х				x	
	Admin	x				x		
	Security command line*	x			x			
	ACFTEST/TSSSIM	x				x		
	Statg	x	x	x				
Compliance Manager								
	Policy*	x				х		
	Events*	x	x				x	
	Alerts*	х						x

* Includes support for RACF



Complete your sessions evaluation online at SHARE.org/SFEval

Datacom CIA, Data mart(s), and Warehouse



About

🕙 Investigator - Mozilla Firefox							_ 🗆 X
ca11.ca.com:9304/Chorus/chorusR2.html?id=12	3456789&locale=	en					
							*
Security 💌 «	Security >	· Events > Data Ma	irts > My DB2 Data	amart >		다 🏢 🖬	
Enter a search keyword ×	All Events	:		Q	🌒 🗘 🖹 😧	l 🛓 🗄 🗄 -	2 ?
Definitions	Notes	Event System 🚖	Security Pro	Event Catego 🌲	Event Type D	Local Timest 🌲	Administ
Systems		DE29	т	ACCOUNT ADMINI	ACCOUNT ADMINI	Mon Aug 22 11:0	HOGWAD
Users							
Kules		DE29	Т	ACCOUNT ADMINI	ACCOUNT ADMINI	Mon Aug 22 11:0	DEMO
CA ACT2 Scope XKErs		DE29	т	ACCOUNT ADMINI	ACCOUNT ADMINI	Tue Aug 23 09:06	CHRTEST
Rules		DE29	т	ACCOUNT ADMINI	ACCOUNT ADMINI	Tue Aug 23 09:06	QACMGR
Roles and Users by Resource		DE29	т	ACCOUNT ADMINI	ACCOUNT ADMINI	Tue Aug 23 09:11	CHRTEST
Data Classifications		DE29	т	ACCOUNT ADMINI	ACCOUNT ADMINI	Tue Aug 23 09:11	CHRTEST
Facilities Class XREFS Events		DE29	т	ACCOUNT ADMINI	ACCOUNT ADMINI	Tue Aug 23 09:11	QACMGR
🔺 Data Marts		DE29	т	ACCOUNT ADMINI	ACCOUNT ADMINI	Tue Aug 23 09:11	CHRTEST
My DB2 Datamart		DE29	т	ACCOUNT ADMINI	ACCOUNT ADMINI	Tue Aug 23 09:11	CHRTEST
All Events		D520	-			The Ave 22 00:11	CURTECT
System Access Events		DE29	1	ACCOUNT ADMINI	ACCOUNT ADMINI	Tue Aug 23 09:11	CHRIESI
Object Access Events							
Administrative Account Events							
Administrative Policy Events							
Administrative Policy Events							
USS File Service Events							
USS User Service Events							
⊿ Data Warehouse							
All Events							
System Access Events							
Object Access Events	•						Þ
Administrative Account Events	4 4 Pa	ge 1 of many 🛛 🕨				Displaying 1 - 10	of many
							*

Export from Security Command Manager





Import Into Security Command Manager



	🕙 CA Mainframe C	horus - Mozilla Firefox					
A Maintrame Choru Edit View Histo	<u>File E</u> dit <u>V</u> iew	Hi <u>s</u> tory <u>B</u> ookmarks <u>T</u>	ools <u>H</u> elp				
A Mainframe Chorus	CA Mainframe Ch	orus	+				+
	e 🧲 🗧 cali.ca	.com:9304/Chorus/				🚖 マ 😋 🚼 マ Google	۶ 🍙
	*			<u>Click here to configur</u>	e the Metrics panel.		► + 7
Ca. Mainfra	a technologies Mai	inframe Chorus			🛓 repth02 (Log Out)	🛄 🖸 Tum Off Metrics Panel	🌂 Preferences 🛛 🕐 Help
chnologies	Getting Starte	ed My Workspace	+				
Investigator	Investigato	r		0 - ×			
Investigator				Start New Investigation			
Public Pathe Quid	Public Paths	Quick Links			@ - ×		
Title	Title	🔺 Security Admin	Security Command M	anager			• - ×
🗄 testing2 📑	🗄 testing2	Administer (System: DE31 (RACF)		 User Name: 	repth02 📑 🖨 🕒	
🗄 testing	🛨 testing						×
2		Administer S Launches the Si		File:		Browse	
- Contraction of the Contraction		Cimulate Ac				Import Clear	
		Launches the A	tss whoami				
		A Storage Admin					
▲		Manage Stor					
8		Launches the St					
	🚺 🖣 🕴 Pag						
N N Pag	_						
						Submit	ar Input Clear Output
			Command Results				
			tss whoami				
odule Library	Module Libra	ry					*
cripte: @ 2012 CA. All	javascript:; © 2012 0	CA. All rights reserved.				. 18	About 🛒





Open Discussion – Q&A

Thank you!

Session #12264





Visit www.SHARE-SEC.com for more information on the SHARE Security & Compliance Project

