



IBM Systems and Technology Group

# Who Should You TRUST?

**RUG-ONE**  
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# Agenda

- **What does TRUSTED mean?**
- **What Address Spaces does z/OS provide?**
- **Which do we recommend to TRUST?**
- **Alternatives to TRUSTing them?**
- **Other factors to consider**
- **Conclusion**

## What does TRUSTED mean?

- Normally applies only to started tasks (STCs) and system address spaces
- Causes **most** RACROUTE REQUEST=AUTH requests to succeed
  - ▶ Not used by REQUEST=FASTAUTH
- Similar to PRIVILEGED, but allows auditing:
  - ▶ Via UAUDIT (just that user)
  - ▶ Via SETROPTS LOGOPTIONS for the class (everyone)

## What Address Spaces does z/OS provide?

- MASTER\*
- PCAUTH\*
- RASP\*
- TRACE\*
- DUMPSRV
- XCFAS
- GRS\*
- SMSPDSE\*
- SMSPDSE1\*
- CONSOLE\*
- WLM
- ANTMMAIN
- ANTAS000
- DEVMAN
- JESXCF
- ALLOCAS\*
- IOSAS
- AXR
- CEA
- SMF
- VLF
- VTAM
- JES2
- JES2AUX\*
- JES2MON
- CATALOG
- TCAS
- LLA
- And many more<sup>+</sup>

\* Limited Function

<sup>+</sup> See MVS Initialization and Tuning Guide  
Chapter 1

## Which do we recommend to TRUST?

See z/OS R10 MVS Initialization and Tuning Reference

### ■ Guidelines:

- ▶ Assign the TRUSTED attribute when one of the following conditions applies:
  - The started procedure or address space creates or accesses a wide variety of unpredictably named data sets within your installation.
  - Insufficient authority to an accessed resource might risk an unsuccessful IPL or other system problem.
- ▶ Avoid assigning TRUSTED to a z/OS started procedure or address space unless it is listed here or you are instructed to do so by the product documentation.

## Which do we recommend to TRUST? (continued)

- Rule: Assign the TRUSTED attribute to the following z/OS started tasks and address spaces:
  - ▶ CATALOG
  - ▶ DUMPSRV
  - ▶ IEEVMPCR
  - ▶ IOSAS
  - ▶ IXGLOGR
  - ▶ JES2 or JES3
  - ▶ JESXCF
  - ▶ LLA
  - ▶ NFS
  - ▶ RACF
  - ▶ RMF
  - ▶ RMFGAT
  - ▶ SMF
  - ▶ TCPIP
  - ▶ VLF
  - ▶ VTAM
  - ▶ XCFAS

## Which do we recommend to TRUST? (continued)

- And optionally to:
  - ▶ APSWPROA, APSWPROB, APSWPROC, APSWPROM, or APSWPROT
  - ▶ DFHSM
  - ▶ DFS
  - ▶ GPMSERVE
  - ▶ OMVSKERN
  - ▶ SMSVSAM



- Alternatives to TRUSTing them?
- Figuring out which resources each STC or system address space really needs
  - ▶ Can require a lot of reading in the books (scattered)
  - ▶ Or a lot of testing
- Problem with not TRUSTing them: You have a less robust z/OS system:
  - ▶ PTFs or new system release could change list of resources
  - ▶ Perhaps you missed something in your testing
- Result: Potential unexpected IPL

- **Other factors to consider**
- Limited Function address spaces: Always run with TRUSTED
- z/OS System Integrity Statement: Applies to most (all?) of the system address spaces and “standard” z/OS STCs
  - ▶ Anything running APF-authorized, supervisor state, or system key
  - ▶ If they can be used to compromise security/integrity call the IBM Support Center
- Finally, if the System Integrity Statement applies, and IF they can be compromised, it does not matter if you have TRUSTED them or not!
  - ▶ the attacker can do anything to the system that he wants

- **Other factors to consider (continued)**
  
- The system address spaces and “standard” z/OS STCs perform a standard set of functions
  - ▶ You may not know what they all are, and so may have a hard time figuring out what resource access to grant
  - ▶ But they are key to the proper operation of the system
  - ▶ If you want z/OS to work, whatever they want to do has to work, too.

## Conclusion

- For all those reasons, it's simply better to
  - ▶ TRUST the ones we suggest that you should
  - ▶ And *perhaps* even the rest of the standard ones that belong to z/OS
  
- IBM has made better recommendations in z/OS R10
  - ▶ We had a SHARE requirement related to that

# System Integrity Statement

First issued in 1973, IBM's MVS™ System Integrity Statement and subsequent statements for IBM OS/390® and z/OS have stood for three decades as a symbol of IBM's confidence in and commitment to the z/OS operating system. Today, IBM reaffirms its commitment to z/OS System Integrity.

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# Questions ?

Questions  
or Time for  
Coffee ?

