



# RACF® z/OS® V1R12 Update GENLOAD Performance

## Kentucky/Ohio/Indiana RACF Users Group Southern California RACF Users Group

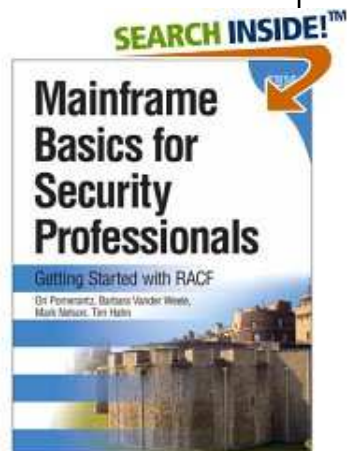
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## z/OS V1R12: Generic Profile Load Performance

- **RACF caches up to 4 sets of generic profile names per address space to speed up authorization checks for resources which are covered by generic profiles.**
  - ▶ Known as **GATEs** (**G**eneric **A**nchor **T**able **E**ntries).
  - ▶ One per data set HLQ or general resource class that is neither SETROPTS RACLISTed, RACLISTed using RACROUTE REQUEST=LIST,GLOBAL=YES, or SETROPTS GENLISTed
- **If an address space uses more than 4 sets of profiles RACF discards the least recently used list of generic profiles**
- **If a deleted HLQ or class is referenced, the list is built again, which can result in thrashing**
- **Prior to V1R12 what could you do?**
  - Split the RACF database
  - Physically rename data sets to reduce the number of generic profiles under a single HLQ
  - Doing an analysis of the existing generic profiles to try to reduce their numbers
  - Implementing a RACF Naming Convention Table

## z/OS V1R12: Generic Profile Load Performance...

- **With V1R12, you can configure the number of sets of profiles!**
  - ▶ Specified using the RACF SET command
  - ▶ Can be set system wide or by job name
  - ▶ Minimum: 4; Maximum: 99
  - ▶ A new TRACE operand has been added to the SET command to capture data about the caching of generic profiles to assist IBM support in diagnosing problems.
  
- **RACF has reorganized the way that GATEs are processed:**
  - ▶ Now in 64-bit storage (instead of ELSQA)
  - ▶ No longer searched linearly

## z/OS V1R12: Generic Profile Load Performance...

- **The SET Command:**

SET ...

```
[ GENERICANCHOR(  
  {SYSTEM | JOBNAME(jobname ...)}  
  {COUNT( number ) | RESET } )  
]
```

- **SYSTEM** increases the number of generic profile caches system wide, for all jobs which do not have an overriding value
- **JOBNAME** increases the number of generic profile caches for all jobs which match the value specified. "\*" may be used as a "don't care" character at the end
- Additional tracing can be activated using this SET command:
  - **SET ... [ TRACE ( ...{ GENERICANCHOR...} )**

## z/OS V1R12: Generic Profile Load Performance...

- The SET LIST Command shows the status:

```
□ RACFR12 IRRH005I (@) RACF SUBSYSTEM INFORMATION:
TRACE OPTIONS - IMAGE
- NOAPPC
- SYSTEMSSL
- RACROUTE
  2 5 9
- NOCALLABLE
- NOPDCALLABLE
- NODATABASE
- GENERICANCHOR (or NOGENERICANCHOR)
...
PASSWORD SYNCHRONIZATION IS *NOT* ALLOWED
AUTOMATIC DIRECTION OF APPLICATION UPDATES IS *NOT*
ALLOWED
GENERICANCHOR:
  SYSTEM: COUNT(nn)
  JOBNAME: job1 COUNT(nn)
  job2* COUNT(nn)
```

## z/OS V1R12: Generic Profile Load Performance...

- **ICHEINTY macro now supports returning multiple generic profile names:**
  - ▶ New keyword: INDEX=MULTIPLE
  - ▶ Must come from the same L1 index block
  - ▶ Must have the same HLQ or class name
  - ▶ Returned in a workarea that is provided by the caller which must be at least 4K in size
    - Each profile that is returned is prefixed with a one-byte length