RACF® Users Group of New England (RUG-One)
A Fresh Look at Erase-on-Scratch

4 June 2015

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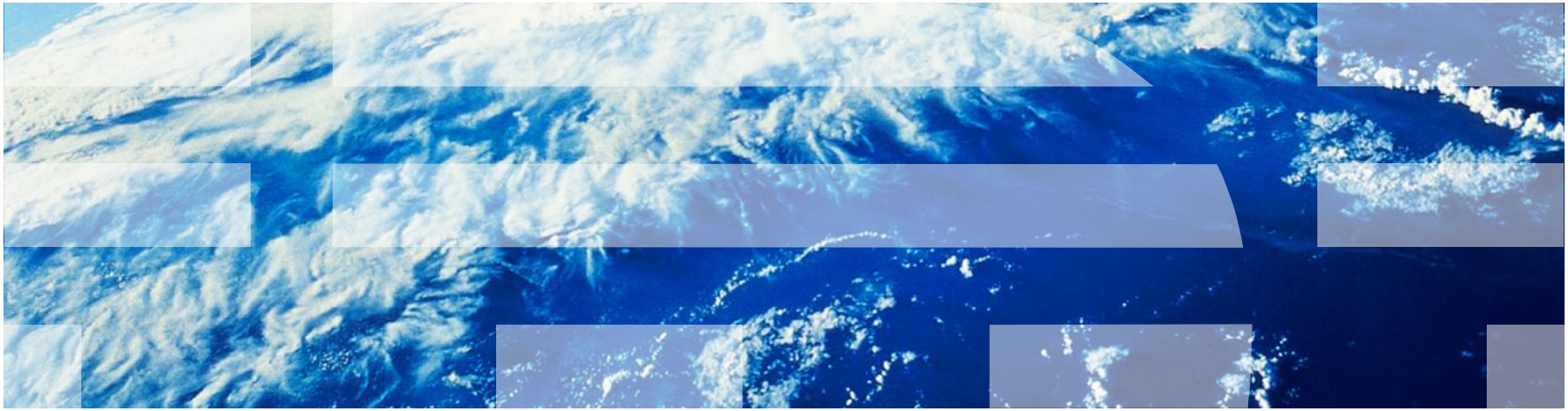

A Fresh Look at Erase-on-Scratch

- **What do you need to do to read residual data on a z/OS system that has not enabled erase-on-scratch?**
  - Authorized code that reads beyond the end-of-file (EOF) marker?
  - Complicated high-level language code with complicated file declarations?
  - Assembler code?
  - Common utilities?
  - Answer: Any of the above!

- **Who is using erase-on-scratch?**
  - April 2013 RSH Consulting survey revealed:
    - ERASE ALL: 13.6%
    - ERASE SECLEVEL: 2.3%
    - ERASE NOSECLEVEL: 22.7%
    - NOERASE: 61.4%

- **What is preventing the more widespread adoption of erase-on-scratch?**
  - Fear of performance impacts!
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A Fresh Look at Erase-on-Scratch…

- **There have been considerable changes since erase-on-scratch was introduced in RACF 1.7:**
  - Faster disk drives, control units, and paths to devices
  - Multiple paths to devices
  - Virtualization of devices
  - Data Space Release (DDSR), which is no longer available
  - Locate record with erase (LRE)
  - Up to 255 tracks with one CCW (z/OS V2R1)
    - More improvements on the horizon
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A Fresh Look at Erase-on-Scratch…

- **Frank Kyne performed erase-on-scratch testing that is documented in Cheryl Watson's "TUNING Letter - 2015 No. 1":**
  - Allocated data sets of 1, 100, 255, 25600, and 63000 tracks
  - Ran a separate job to delete each data set, variying erase-on-scratch on and off, on z/OS V1R13 and z/OS V2R1
- **Frank's results:**
  - Small reduction in elapsed time and EXCP counts for the smaller data set sizes (1, 100, 255)
  - Large reduction in elapsed time and EXCP counts for the larger data sets
    - For the 63,000 track data set, EXCPs dropped from 63,007 to 263
    - Elapsed times decrease between 1/3 and 2/3
- **Once you are on z/OS V2R1, perhaps it's time to revisit erase-on-scratch!**

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