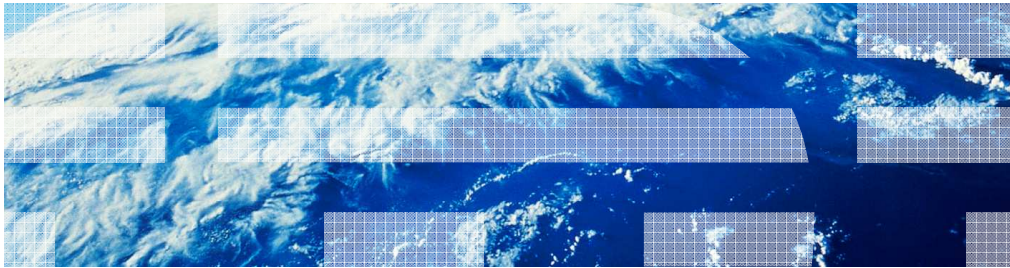

z/OS Operating System

z/OS V1R12 TSO/E multiple logon support



This presentation will discuss TSO/O Multiple Logon Support in z/OS® V1R12.

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The agenda for the presentation will include an overview of the problem (and solution and benefit), usage and invocation, migration and coexistence considerations, installation information, and a session summary.

Overview

- Problem statement:
 - JES2 supports multiple TSO/E logons but TSO/E does not
 - Customers who allow multiple logons notice SEND failures:
 - IKJ55072I USER(S) IBMUSER NOT LOGGED ON OR TERMINAL DISCONNECTED, MESSAGE CANCELLED
 - TSO/E should allow multiple logons by users
- Solution:
 - When the system cannot determine which instance of a user to SEND a message to just send it to the first instance found
 - TSO/E supports multiple logons by users (once per system)
- Benefit:
 - Improves user productivity and simplifies user ID maintenance

In z/OS V1R4, JES2 stopped preventing duplicate TSO/E logons. As a result, duplicate instances of a given user ID could logon at the same time to different systems in the same JES2 MAS, depending on the system settings. Duplicate logons, once per system, are allowed by TSO/E when the SYSIKJUA enqueue has scope SYSTEM in a sysplex, instead of scope SYSTEMS.

However, if the TSO/E SEND command was issued on a system where that user was not logged on, TSO/E could not determine which instance of the user should get the message, and the SEND command failed with error message IKJ55072I USER(S) IBMUSER NOT LOGGED ON OR TERMINAL DISCONNECTED, MESSAGE CANCELLED. Due to this limitation, TSO/E could not support multiple logons or encourage customers to configure their systems to allow multiple logons, despite the potential benefits of multiple logons to productivity and user ID maintenance.

Now in z/OS V1R12, the TSO/E SEND command has been modified to issue a message to the first instance of a user it finds, in scenarios where it would have failed with message IKJ55072I. As a result, TSO/E supports multiple logons, and customers are encouraged to consider configuring their systems to allow it, if they see the advantages for user productivity or maintenance.

Usage and invocation

- Using line item, you can:
 - LOGON to TSO/E once per system in a sysplex with JES2, but not JES3, if the SYSIKJUA ENQ is configured correctly
 - LOGON RECONNECT only works on the system a user is on
- Value:
 - This reduces the need to manage multiple user IDs and passwords
 - For example: KASPER, KASPER1, KASPER2, KASPER3
 - Allows improved multitasking and operation by TSO/E users
 - JES2 has also improved job notification processing
 - SENDs notices on the node where a job was submitted
 - If the target user is not found it is issued where the job ran

As a result of this change, if your system is configured to allow it, you can log onto system B while you are already logged onto System A. Instead of an error message telling you that your user ID is already in use, you will get logged onto System B. Everything will work as normal, except to reconnect to your session the reconnect request must originate on the same system.

JES2 also made some improvements in z/OS V1R12 to handle job notifications better for users who are logged on more than once: When deciding where to send a job notification message, JES2 will prefer the member number of the submitting JES2. If the notify user ID is logged onto that member, then that is where JES2 will send the notify message. This applies even if the notify user ID is NOT the user ID that submitted the job. If the notify user ID is not on the same NJE node as the submitter of the job, then the previous method is used (the same as before z/OS V1R12).

Migration and coexistence considerations

- Multiple logons are not supported on lower level systems due to the restrictions on SEND command processing described earlier
- SEND issued from a lower level system will still fail like before
- SEND issued from a higher level system will work for any target system (assuming that users can be logged on more than once)

Multiple logons are not supported on lower level systems due to the restrictions on SEND command processing described earlier.

TSO/E SEND or MVS SEND issued from a lower level system will still fail like before in the test scenario if it is not running on z/OS V1R12.

TSO/E SEND and MVS SEND issued from a higher level system should work for any target system (assuming users can even be logged on more than once).

Installation

- Update active GRSRNLxx member to delete or comment out:
 - /* RNLDEF RNL(INCL) TYPE(GENERIC) */
 - /* QNAME(SYSIKJUA) */
- ISPF configuration changes are also needed to avoid errors:
 - Profile sharing allows multiple instances to share a profile
 - Symbols can be used for unique ENQ or data set names
- If switching to unique SYS1.UADS data sets you should add:
 - RNLDEF RNL(EXCL) TYPE(SPECIFIC)
 - QNAME(SYSDSN) RNAME(SYS1.UADS)

Allowing multiple logons requires some planning before it can be enabled. First, you need to change the RNL inclusion list to either delete or comment out the SYSIKJUA entry in the active GRSRNLxx member, which might require a sysplex-wide IPL. If there is already no entry and you are running within a JES2 MAS, then multiple logons are most likely already being allowed.

If you want to change the scope of the SYSIKJUA ENQ, first you need to configure ISPF to avoid any ISPF abends. Specifically, profile sharing should be enabled, or system specific logon procedures or symbols should be used to ensure unique ISPF ENQ and data set names. See z/OS ISPF Planning and Customizing for more details on configuring ISPF for multiple logons.

In most cases, TSO/E users are managed with a RACF® database, not with a SYS1.UADS data set. However, many installations retain a SYS1.UADS data set with a few users as a backup. Those installations in particular might want to keep separate versions of SYS1.UADS for each system in order to avoid serialization problems if the scope of SYSIKJUA is set to SYSTEM. See TSO/E Customization for more details about configuring TSO/E for multiple logons and setting the scope of the TSO/E ENQs correctly.

Session summary

- TSO/E now supports multiple logons, once per system in a JES2 MAS sysplex configuration, although there are some limitations
- Configuration changes are needed to activate this new support, both in terms of GRS updates and ISPF settings updates

In summary, TSO/E now supports multiple logons, once per system in a JES2 MAS sysplex configuration, although there are some limitations. For example, messages might not always go to the instance of a user ID on the system that was intended. Configuration changes are also needed to activate this support, both in terms of GRSRNLxx updates and changes to ISPF settings.

Appendix

- Additional related materials
 - z/OS V1R12.0 TSO/E Customization (SA22-7783-11)
 - z/OS V1R12.0 MVS Planning: Global Resource Serialization (SA22-7600-10)
 - z/OS V1R11.0 ISPF Planning and Customizing (GC34-4814-08)
 - z/OS V1R12.0 JES2 Initialization and Tuning Guide (SA22-7532-10)
 - z/OS V1R12.0 MVS Diagnosis: Reference (GA22-7588-15)

Information on additional related materials is provided.



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